Lectures
ON
FIBROID DEGENERATION AND ALLIED LESIONS OF THE HEART, AND THEIR ASSOCIATION WITH DISEASE OF THE CORONARY ARTERIES.

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LECTURE III.

SUMMARY OF CONCLUSIONS.

THE somewhat exhaustive study which we have made of the varieties of heart disease described in the foregoing lectures naturally leads me to formulate the following conclusions, which I think will be fully borne out by the facts already passed in review:—1. That a very sharp distinction must always be drawn between true atrophic fibroid degeneration and interstitial myocarditis; that, though similar in their results, they are quite different in their mode of production, and that the former is a much more common lesion than the latter. 2. That we should not be satisfied with merely opening the heart and examining the endocardium and valves, as is too often the case at post-mortem examinations, but that in all cases the muscular tissue, by numerous incisions parallel to the surface, should be carefully investigated. 3. That the anastomosis of the coronary arteries is not so free as to be of any practical moment (especially when the vessels are diseased) in preventing the occurrence of fibroid degeneration or of infarction of the heart as a result of obstruction of their branches. 4. That the influence of a morbid state of the coronary arteries must be taken into account in considering all diseases of the heart, but especially those of the myocardium, and that no examination of the heart can be regarded as complete which does not include a careful investigation of the state of these vessels. 5. That, though admittedly difficult, the possibility of diagnosing fibroid degeneration and infarction of the heart should always be kept in sight, and that by carefully passing in review the whole symptomatology and pathology of a given case of cardiac disease, a correct opinion in this regard may probably be arrived at.

RECORD OF CASES OF FIBROID DEGENERATION, INFARCTION, AND FATTY DEGENERATION OF THE HEART ASSOCIATED WITH A DISEASED CONDITION OF THE CORONARY ARTERIES.

It now only remains for me to briefly record the cases which I have investigated, and upon the examination of which the opinions I have already expressed are mainly based. For the opportunity I have had of examining many of the following cases, and for liberty to make use of the pathological records in connexion with them, I have in this place to express my obligations to my friend Dr. Joseph Coats, lecturer on Pathology in the Western Infirmary of Glasgow.

CASE 1. *Slight fibroid and fatty degeneration of left ventricle, with atheroma of the coronary arteries.*—Duncan C——, aged fifty-two, was admitted to Dr. Anderson's wards of the Western Infirmary on Jan. 28th, 1885, complaining of a common cold of a week's duration, with a sense of uneasiness in the epigastrium, and several attacks of severe pain in that region. There was some tenderness and enlargement of the left lobe of the liver; and two days after his admission he was suddenly seized with severe pain of the nature of angina pectoris, and died in about ten minutes.

A post-mortem examination was made on Feb. 1st, 1885, of which the following is a summary: Flabby and dilated heart; passive hyperæmia of lungs and other organs. With regard to the heart, it was found to be somewhat enlarged, weighing 12½ oz., and the right ventricle was considerably dilated. The cavities contained much fluid blood, and almost no clot; the mitral orifice admitted three fingers, the tricuspid six. The muscular tissue, especially that of the right ventricle, was pale, and to the touch it felt flabby. The valvular structures were normal. The internal coat of the aorta presented patches of fatty degeneration. On careful examination of the coronary arteries many small areas of atheroma were discovered, but the vessels were quite pervious. Throughout the muscular tissue of the left ventricle numerous small yellowish spots were discovered, and on its posterior wall near the apex there was a distinct fibrous area about the size of a threepenny-piece, with around it evidences of slighter degrees of the same thing. There was also a generalised, but by no means extreme, fatty degeneration of the muscular tissue. The kidneys presented nothing remarkable. On microscopic examination of the fibrous area, it was found to consist of delicate wavy lines of connective tissue, with here and there a granular appearance as if nuclei were scattered through it. In the midst of the fibrous tissue remains of muscular fibres were present; these fibres became atrophied at their extremities, and were prolonged into delicate, wavy fibrillæ, which were ultimately lost in the surrounding connective tissue. The appearances were strikingly suggestive of an atrophy of the true muscle substance having taken place. On staining with picrocarmine, the affected patch stained of a deep-red colour.

CASE 2. *Slight fibroid degeneration of left ventricle: coronary arteries pervious, but presenting evidence of hypertrophy of middle coat; granular kidneys.*—Alex. K——, aged fifty-three, a plumber, was treated in Dr. Joseph Coats' ward of the Western Infirmary. The clinical history was that of chronic Bright's disease, with two attacks of generalised œdema, one of which occurred during his residence in hospital, when fatal uræmic convulsions supervened.

The following is a summary of the post-mortem examination: Granular kidneys (atrophy of cortex); enlarged left ventricle of heart; dilatation of lateral ventricles of brain; œdema of membranes. The heart presented great hypertrophy of the left ventricle, and weighed 20 oz. The muscular tissue was of good colour and consistence. On careful examination a small area of fibroid change about the size of a split pea was discovered in the anterior wall of the left ventricle. The coronary arteries, so far as could be discovered by the naked eye, were quite healthy and pervious. A typical "soldier's spot" was present on the surface of the right ventricle, and it was also noted that the pericardium presented linear, opaque, white areas of thickening, which followed the course of, and seemed to surround, the branches of the coronary arteries. The fibroid patch and the pericardial thickenings were reserved for microscopic examination. The kidneys were extensively diseased; the cortex was much atrophied and infiltrated with round cells; uric acid infarctions were present in the pyramids. On microscopic examination the fibroid patch presented characters precisely similar to those observed in the last case. In several of the sections minute arteries were observed, and these presented very obvious signs of disease. The middle coat was very greatly hypertrophied, but no sign of the so-called arterio-capillary fibrosis could be detected. In the thickened pericardium the arteries also showed distinct thickening of the middle coat, but no exaggeration of the external.

CASE 3. *Fibroid patch in left ventricle; widespread arteritis deformans; coronaries pervious, but hypertrophy of middle coat of arterioles.*—Mrs. M——, aged thirty-five, was admitted to Dr. Anderson's wards on Nov. 3rd, 1886, complaining of palpitation and dyspnœa. The symptoms had been present for eleven years, more or less. There was a double aortic murmur, with dulness over the manubrium sterni and purring tremor in the supra-sternal notch. Hæmoptysis occurred on several occasions, and dyspnœa was always distressing.

On post-mortem examination the case was found to be one of widespread arterio-sclerosis (arteritis deformans); but with the naked eye the coronary arteries were found to be flexible and healthy throughout, with not a trace of atheromatous deposit to be seen, even in the finer ramifications. The left ventricle was greatly hypertrophied, and in the apical region a very typical patch of fibroid change, about half-an-inch in diameter, was discovered. It was depressed, white, and glistening or tendinous in appearance. On microscopic examination the fibroid patch presented the characters already described. The arterioles, however, in and around the sclerosed area presented marked hypertrophy

of the middle coat, and in some it was also thought that there was slight thickening of the internal coat as well.

CASE 4. *Multiple areas of fibroid disease and softening due to embolism of coronary arteries; extensive aortic disease.*—Mrs. S——, aged thirty-eight, was admitted to Dr. Anderson's wards on Feb. 6th, 1885, complaining of cough, dyspnœa, and profuse expectoration of about one month's duration. There was a history of bygone rheumatic pains in the joints. Six years previously she had suffered from similar symptoms after a confinement, and the fatal attack began after her last labour. There was passive congestion of all the organs, which continued till death, and well-marked signs of aortic disease.

The heart was enlarged, weighing 17 oz.; the hypertrophy was general, but was specially well marked in the left ventricle. The aortic valve was quite incompetent, and much disorganised—the curtains being greatly deformed and the seat of massive vegetations. In some places the segments of the valve were distinctly torn. Infarctions were present in the lungs, and other organs. On more minute examination of the heart, numerous small areas of fibroid change were found scattered throughout the substance of the wall of the left ventricle. Most of these areas had the typical shining and tendinous appearance, and were depressed beneath the level of the cut surface, and irregular in outline. At two places were observed more recent patches of a brownish or hæmorrhagic appearance, and distinctly soft in consistence. The characters observed in this case very decidedly suggested multiple embolism as the cause of the condition. On microscopic examination the distinctly fibroid areas presented features quite similar to those already described, but in the recent patches the histological characters were quite in keeping with the supposition that they had been caused by an embolic process—that is to say, in the recent areas the bundles of muscular fibres, while they preserved their bulk and general outline, had lost the opaque and striated appearance of the healthy bundles; the individual fibres looked as if they had run together more or less, and they had throughout a homogeneous, glistening, transparent character—coagulation necrosis. The bundles of coagulated muscular fibres were separated from one another, just as in the case of normal bundles, by strands of fibrous tissue. These appearances were observed in one of the patches which had been cut in transverse section, and on examination of another portion cut in longitudinal section precisely similar changes were made out. The fibres were evidently coagulated, and were in many places undergoing absorption. The absorbed fibres were replaced by very beautiful fibrous tissue, and so long as any necrosed tissue could be seen it presented the translucent, bright-yellow appearance already adverted to. The affected patch was quite irregular as regards its junction with the surrounding healthy tissue, and here and there isolated normal fibres might be seen in the midst of the necrosed area. At the margins of the areas in some of the sections numerous engorged veins were seen, with slight exudation of round cells into the surrounding tissues. The muscular nuclei had disappeared from the coagulated fibres

This case seemed to me to be most important as showing the relationship existing between the acute infarction of the heart wall and the chronic fibroid change; and, clinically, it also points to a possible cause of rapid heart failure in cases of severe aortic disease.

CASE 5. *Multiple areas of fibroid degeneration and softening, probably embolic; atheroma of coronary arteries.*—John C——, aged sixty-two, died in one of Dr. Tennent's wards on March 20th, 1885. He had been suffering from cough, spit, dyspnœa, and palpitation, with pain across the chest, and œdema of the ankles. On Feb. 24th there was complaint of pain and numbness in the left leg, with painful swelling of the left thigh. On Feb. 28th he was paralysed on the left side of the body and the right side of the face. On March 7th there was a second attack of facial paralysis, and on the 20th he died.

On examining the basal vessels of the brain, the right posterior cerebral was found to be cylindrical, being distended by a dark plug, which extended to its bifurcation, where the thrombus became rather pale. The obstructed vessel crossed over the right peduncle and the third nerve; and the peduncle was much softened. Embolic infarctions were also present in the kidneys and spleen. The heart was somewhat enlarged and dilated, weighing 13½ oz.; and there were thrombi in the apex of the left ventricle. The valvular structures presented opacities and occasional calcareous infiltration. On more particular examination, it was found that the organ presented patches of fibroid change, with a well-marked area of softening in the substance of the left ventricle near the apex: the morbid condition of the muscular tissue was in all probability due to embolism of the smaller branches of the coronary arteries. The area of softening at the apex of the left ventricle was about the size of a sixpence; and on being cut into was seen to be semifluid in consistence and brown in colour: the morbid area could be easily differentiated from the surrounding healthy tissue by being depressed below its level. About the middle of the posterior wall of the left ventricle and corresponding pretty nearly in situation with the point of attachment of the musculi papillares of the posterior curtain of the mitral valve, there was an area about the size of a shilling of well-marked tendinous change, which was hard and tough on section, and which extended through the entire thickness of the ventricular wall. The coronary arteries were perhaps slightly dilated and tortuous, and presented here and there small patches of atheroma similar to those observed on the valvular curtains; but, as far as they could be traced, all the branches were pervious. The area on the posterior wall was in the region supplied by a terminal branch of the right coronary artery, that at the apex in the region of the descending branch of the left. Sections were made from several of the morbid areas in this heart, and on microscopic examination the appearances were found to be very similar to those described in connexion with Case 4—i.e., the softened areas presented well-marked signs of coagulation necrosis, and the fibroid patches showed the wavy strands of fibrous tissue. It was also noted that around the recent patches there was great dilatation with engorgement of the capillaries and veins; the arteries had thickened walls, were not engorged, and presented in their interiors a distinct fibrinous stroma, in the meshwork of which a few blood-corpuscles were entangled, this appearance being very suggestive of the presence of thrombosis in the smaller arterial branches. In addition the following features were also observed: (1) In some places a distinct cellular infiltration was observed, as if slight inflammatory reaction had been set up; (2) here and there large round cells not unlike compound granular corpuscles were seen, and it was thought that possibly these cells may have had some relationship to the muscular nuclei; and (3) in some sections, as well as the capillary engorgement, a distinct infiltration of the interstices of the tissues with red blood-corpuscles, a circumstance quite in keeping with the view that the condition was the result of embolic infarction, was noticed.

CASE 6. *Extensive fibroid degeneration of left ventricle, with extreme calcareous disease of coronary arteries.*—Duncan G——, aged seventy-four, died in one of Dr. H. C. Cameron's wards on Feb. 25th, 1885. He had been admitted on Feb. 12th on account of difficulty of micturition, which had been present in a more or less severe form for about eight years. On the 21st, on trying to get out of bed, he fell on the floor, and seemed to have lost the power of his right side to some extent; the left shoulder was also very painful. On the 24th breathing became stertorous; there seemed to be some loss of power in both arms and in the left cheek. In a few hours he died.

At the post-mortem, on examination of the head, no recent lesion could be discovered in the brain; but there was extreme atheroma of both middle cerebral arteries. The heart was considerably dilated, weighing 17¾ oz.; and on careful examination a most striking and extensive fibrous transformation of the muscular substance was found in the lower two-thirds of the posterior wall of the left ventricle. The greatest length of the patch was three inches and a half, and breadth one inch; its margin was irregular, and it stretched obliquely downwards from a point a little above the middle of the outer wall of the ventricle towards the apex. A calcareous plate causing constriction of the left coronary artery was discovered at its point of bifurcation into the descending and circumflex branch; the right coronary artery was also atheromatous.

It is interesting to note that at the time of the post-mortem examination this patch was not discovered; and it was only on more detailed investigation, after the case had been demonstrated by Dr. Joseph Coats to his pathological class, that I found it to be present. Its presence could not have been guessed by simple inspection either of the endocardial or pericardial surfaces.

CASE 7. *Extensive fibroid degeneration of the left ventricle, with extreme disease of the coronary arteries.*—Robert W——, aged sixty, a traveller, was admitted to Dr. Tennent's wards on Feb. 13th, 1885, suffering from dyspnœa, hæmoptysis, and slight œdema of both lower extremities. There were distinct evidences of passive congestion of the lungs, and well-marked ventricular-systolic aortic and ventricular-systolic mitral murmurs were made out on auscultation, as well as accentuation of the second sound at the base. During a former residence in the hospital, December 1884, he had suffered severely from angina pectoris, which also caused much distress during his last illness. He was also occasionally seized with severe attacks of dyspnœa, during which the whole body became very cold. He died on May 22nd, 1885.

The following is a summary of the post-mortem examination: Great atheroma of aorta, with thrombosis; atheroma of the coronary arteries; fibroid transformation and dilatation of the ventricles of the heart; plugs in the pulmonary artery; infarction of the kidney. The heart was enormously enlarged, but the weight of the organ has not been recorded. The left ventricle was greatly distended, as was also the right, but to a less extent. In the right auricle and ventricle were several globular vegetations—a large one in the auricle yielding a brown juice when cut into. The first part of the aorta was in an extreme state of atheroma, with calcareous infiltration almost continuous. The wall of the left ventricle presented in various places a remarkable atrophy, accompanied by a fibrous transformation of its muscular substance. Both coronary arteries were extensively diseased. On more detailed examination the following facts with regard to the fibroid degeneration were made out. The left or posterior coronary artery presented well-marked atheroma and calcareous change, especially in its descending branch. Just beyond the origin of this branch the lumen of the vessel was very considerably narrowed (being converted into a rigid calcified tube of fully an inch in length); and on laying open the artery, an adherent reddish clot, which caused additional obstruction, was discovered. The distal branches of this vessel were also considerably narrowed and calcified. In the ventricular septum in the area supplied by this vessel there was a large patch of typical fibroid degeneration, two inches long by one broad. The glistening tendinous character of the patch was most striking towards the centre, whilst at the margin the fibrous metamorphosis insinuated itself quite irregularly between the healthy muscular fibres; the change caused distinct loss of bulk, and the cut surface of the morbid area was distinctly concave. Here and there the morbid surface presented a reddish streak, as if due to an engorged vessel or a hæmorrhagic extravasation. The relationship to the diseased vessel was in this case exceedingly well marked. In the posterior wall of the left ventricle a long, ill-defined, and diffused strand of similar change, passing downwards towards the apex from the insertion of the musculi papillares, was discovered. A similar patch was also present in the anterior wall. The right coronary artery was also extensively diseased and much dilated, but it contained no adherent clot, although there was plenty of loose débris. There was also extensive fatty infiltration of the organ.

CASE 8. *Slight fibroid disease of left ventricle, with generalised fatty degeneration; serious disease and obstruction of coronary arteries.*—James S——, aged forty-nine, was admitted to Dr. Gairdner's wards on March 13th, 1885, and died on June 18th of the same year. In December, 1884, he began to suffer from pain across the breast on any exertion, accompanied by attacks of shortness of breath. It was found to be a case of aortic regurgitation, with dilatation of the arch (possibly aneurysm). There was hypertrophy of the left ventricle, and symptoms of well-marked angina pectoris, with apparent extension of neuralgic sensations into the right lower limb, where distinct evidences of regular gout were observed. Ventricular-systolic and ventricular-diastolic murmurs were heard over the aortic area; the vessels were tortuous, and there was dull percussion over the manubrium sterni. Latterly there was a considerable amount of blood in the expectoration, with marked orthopnœa and acceleration of the pulse and respiration. There was no history of previous serious illness, but the patient had been a drinker.

Summary of post-mortem: Dilatation and hypertrophy of the left ventricle, with contraction of the aortic curtains and extreme atheroma of the aorta; passive congestion of the lungs; granular kidneys; deposits of urate of soda in the metatarso-phalangeal joints. The heart was very much enlarged, weighing 27½ oz., and the arch of the aorta was somewhat dilated. The tricuspid orifice passed five, and the mitral three, fingers. The aortic valve was quite incompetent, from its curtains being involved in the atheromatous disease. The aorta presented an extreme state of atheromatous change, and the muscular tissue of the heart was very pale, and presented considerable fatty degeneration of the left ventricle. The coronary arteries were pervious, but much diseased in several places. In the first part of the descending branch of the left coronary a calcareous plate of stony hardness was discovered; it was half an inch long by one-eighth of an inch broad, and it emitted a ringing sound on being struck with the probe; the orifice of the vessel was somewhat rigid and slightly narrowed. The orifice of the right coronary artery was greatly contracted, so that only a very fine probe could be passed through it. Beyond the obstructed orifice there was great dilatation and considerable tortuosity of the vessel; in its interior there was broken-down blood clot, at places slightly adherent to the vessel wall. In the posterior wall of the left ventricle slight traces of fibroid change, extending over an area of about the size of a shilling or more, and showing the usual microscopic characters, presented themselves; in many places, too, the muscular fibres showed great granularity, obviously due to fatty degeneration. This slightly fibroid area, the only one discovered, was in the area of distribution of the terminal branch of the right coronary artery.

(To be concluded.)

Clinical Lectures
ON
DISEASES OF THE EYE.

Delivered at the Nottingham and Midland Eye Infirmary,

BY C. BELL TAYLOR, M.D., F.R.C.S.,
HONORARY SURGEON TO THE INFIRMARY.

LECTURE VI.

GLAUCOMA.—(*Concluded.*)

GENTLEMEN,—In a former lecture on the Use and Abuse of Mydriatics,[1] I called your attention to the great danger attendant upon the instillation of atropine in all cases of possible or threatened glaucoma, and it becomes interesting now to inquire in what this danger consists. One would think *a priori* that atropine, from its sedative influence and power of checking secretion, would be a useful remedy in glaucoma, and so it would, but for its power of dilating the pupil. It is this purely mechanical action, this crowding of the iris into the angle of the anterior chamber—the main outlet for fluids from the eye,—which is the source of all the danger attending the employment of mydriatics in glaucoma. I pointed out also that in doubtful cases it was safest to use cocaine—an alkaloid which checks secretion even of tears, relieves pain, diminishes the calibre of bloodvessels, reduces tension, and, although an efficient, is still, compared to atropine, a feeble and non-persistent, mydriatic. Since then I have demonstrated over and over again that eserine, although impotent, or nearly so, as a myositic against atropine, duboisine, daturine, hyoscyamine, and the more powerful mydriatics, possesses complete control in this respect over cocaine, and that the two in succession or combination may not only be safely employed, but in this form will probably constitute one of the most valuable adjuncts to our remedies for the treatment of glaucoma. Let me illustrate my meaning. If the iris, when dilated, should be so fixed by adhesions that it could not contract, eserine, powerless to stretch apart the fibres of the ligamentum pectinatum, by reducing the size of the pupil, would probably do nothing but harm by its irritant action; and if the pupil should be contracted and occluded by adhesions, so that atropine could not crowd out the angle of the anterior chamber by dilatation, it might

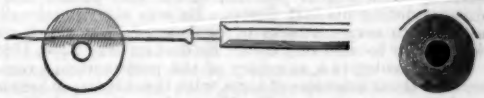
[1] THE LANCET, Sept. 5th, 1885.

do nothing but good by its sedative influence and power of checking secretion. Recollect, therefore, that the action of these drugs in glaucoma for good or ill is mainly mechanical, and that, apart from contraction or dilatation, the collateral result may prove the exact opposite of what you intended. Let us admit the correctness of the generally received views as to the causation or aggravation of glaucoma by excess of secretion or retention of fluids, owing to closure of the angle of the chamber and circumlental space by the expanded iris, and we can readily understand how the removal by operation of a portion of this both secretive and obstructive membrane may permanently relieve a condition which, unchecked, is certain to go on to destruction of the eye; and this is precisely what happens when a portion is excised, as in von Graefe's operation. Graefe had been struck, while attending the clinique of the elder Desmarres, with the remarkable results obtained by paracentesis in various affections of the eye. Mackenzie had pointed out that in glaucoma the globe became hard; it was clearly softened momentarily by tapping, and the larger the incision the better the result. Unfortunately—I should say fortunately in this case—when the wound was large the iris protruded, and to get rid of this difficulty von Graefe cut it off. (See Fig. 1.)[2]

FIG. 1.

How simple it all seems, and yet what stupendous results! Let me endeavour to bring home to you the vast benefits he has thus conferred upon suffering humanity. Sixteen years ago I was called by the late Dr. Watchorn to see a lady who had been struck with blindness some days before—in fact, both her eyes were in much the same condition as that of the poor woman with the green pupil you have just examined. She had bare perception of light with the left eye, was in an agony of pain, and the right, by reason of the longer duration of the malady, was, so far as sight was concerned, beyond the reach of art. A large iridectomy upwards, however, instantly, as if by enchantment, stopped the whole process in both eyes, and from that day to this she has with the left eye enjoyed most excellent vision, both for near and distant objects. We do not succeed like that in every case, but we do in a large proportion; and it is no exaggeration to say that hundreds of persons are every year saved from blindness by the performance of this simple operation. The one drawback to iridectomy is the mutilation of the pupil and consequent deformity with dazzling from circles of diffusion, and in order to avoid this ophthalmic surgeons have ever since 1856, the date of von Graefe's discovery, been endeavouring to improve upon the operation. Speaking on this subject, De Wecker says: "I am convinced that with the progress of knowledge some other proceeding more simple and essentially more logical will be substituted."[3] It may be so, but I am not of that opinion, nor can I recommend you to atempt any other operation in fulminating, acute, or inflammatory glaucoma. In certain specific and in some milder cases, it is true that less severe measures have sufficed, or must perforce be substituted. Sclerotomy, for instance, may take the place of iridectomy in the very incipent or doubtful stages of all forms of the disease; in hydrophthalmos, which is the glaucoma of children, where excision of the iris is so apt to be followed by rupture of the zonule, hæmorrhage, escape of vitreous, and collapse of the globe; and it must also take the place of iridectomy in adults suffering from the hæmorrhagic form of the disease, where the too sudden reduction of tension by iridectomy is apt to be followed by similar accidents. It should also be adopted in glaucoma absolutum, where it is impossible to excise the iris; and in cases of long-standing simple glaucoma, where advancing blindness is on the eve of invading the macula or point of fixation, and where any coarse operation may precipitate the impending catastrophe. Some ophthalmic surgeons (Schweigger, Wecker) even prefer sclerotomy in inflammatory cases, providing only extreme contraction of the pupil can be previously obtained by eserine, and it is undoubtedly useful as a preliminary to iridectomy when the inherent difficulties of the latter operation may be to some extent removed by a previous reduction of tension. In performing sclerotomy, the knife should enter and emerge in the corneo-sclerotic junction, precisely as if you were going to make a flap of four millimetres; pushed upward with a to-and-fro movement, and then slowly withdrawn, leaving about a fourth undivided.[4] (See Figs. 2 and 3.) But little after-treatment is needed, and although the chamber is not re-formed for some days, the patient may return home on the third. I have even in some cases, and for special reasons, discharged them at once. The great advantages of this operation are, that it may be repeated again and again, that it involves no muti-

FIG. 2. FIG. 3.



lation, and may be adopted as a supplementary procedure both before and after iridectomy.

Here is a patient, aged twenty-seven, from Ruddington, who illustrates the great advantages of these combined operations. She consulted me four years ago on account of excessively painful glaucoma consummatum of the left eye, the result of extensive iritic adhesions. As she was young and good-looking I did not like to extirpate the eyeball, and therefore divided the optic and ciliary nerves, with complete relief to all her painful symptoms. A year ago, that is three years after the neurotomy, she applied again with intense iritis of the right eye, and as I feared that there might have been some re-formation of nerve tissue and consequent sympathetic mischief, I removed the left globe.[5] Nevertheless, the right eye speedily developed glaucoma, and I found it necessary to remove the upper segment of the iris. A few weeks later, however, the symptoms returned, and I excised the lower segment, again arresting the progress of the disease. Subsequently, in consequence of recurring attacks of blindness with excessive tension, I found it necessary twice to perform sclerotomy, with the result, as you see, of perfect restoration to sight, which remains and bids fair to remain.

In attempting sclerotomy or iridectomy, it sometimes happens, owing to the extreme narrowness of the anterior chamber, that the point of the knife gets entangled in the iris, and before it can be pushed across the chamber the aqueous escapes. When this is the case it is prudent to delay the operation, or limit it *pro tem.* to a paracentesis, and I have occasionally with advantage kept the wound patent, and let out the aqueous from time to time by the daily or more frequent use of a blunt probe, or, what is better, a Weber's canaliculus knife; indeed, some surgeons have lauded paracentesis as superior in certain cases to other operations. For instance, Dr. Cuignet, Ancien Médecin Principal à Lille, records a case of glaucoma cured after seventeen evacuations of the aqueous humour, and thus expresses himself respecting the operation: "C'est à tort qu'on a laissé l'iridectomié supplanter presque completement la paracentèse cornéene, dans une foule de cas où celle ci était usitée jadis et jouit, en effet d'une réelle efficacité."[6] As an operation *per se*, however, if we must be limited to tapping, the vitreous chamber appears to me to offer much greater chances of success to the surgeon—an operation which has been strongly recommended by various authors, even so long as a hundred years ago (Guérin de Lyon); again in 1830 by Mackenzie and Middlemore; since then by the elder Desmarres; and most recently by Dr. G. L. Johnson,[7] who thus writes with reference to chronic and old-standing glaucoma: "With the light which modern research has shed upon the subject, it appears to me that it is useless to seek for improvement by attacking the angle of the anterior chamber (by sclerotomy or iridectomy), since the destructive processes are in that region already too far advanced, while the relief afforded is insignificant when compared to the gravity of the operation." In performing paracentesis of the vitreous, you must turn the eye inwards as much as possible, and then thrust a Wenzel's or Beer's cataract knife to the depth of about half

[2] The incision must be made in the corneo-sclerotic junction, and the upper quadrant of the iris removed right up to its ciliary border, taking care that no portion is trapped in the angles of the woun

[3] Therapeutique Oculaire, p. 320

[4] Sclerotomy does not act, as has been supposed, by the production of a permeable scar, but probably by establishing a new path by which fluid can reach the corneal and scleral lymph-spaces from the retraction of the cut membrane of Descemet (the posterior elastic lamina of the cornea).—*Brailey.*

[5] See lecture by the author on "Optico-ciliary Neurotomy" (THE LANCET, Sept. 4th, 1886).

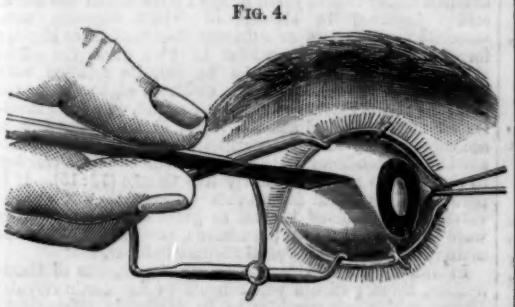
[6] Annales d'Oculistique, June 1886, p. 257.

[7] Glaucoma and its Treatment. London: Lewis, 1884.

an inch into the globe, withdraw the knife slowly, and bandage the eye with cotton wool. (See Fig. 4.)

Dr. Johnson says "the relief is always immediate and generally permanent"—a statement the latter part of which, I regret to say, I cannot endorse; for I have found that when the wound heals the patient is in much the same position as before;[8] although it is true that wounds of the sclerotic, owing to the constant movement of the ocular muscles, seldom heal firmly by the first intention; and it is well, as Dr. Dianoux has pointed out, to assist this disposition to gape by systematic massage as well as by a cross incision. Dr. Argyll Robertson taps the vitreous with a trephine, removing a small disc of sclerotic, an operation which appears to have been attended by considerable reaction (Brailey); and other surgeons, looking upon glaucoma as a spasm of the ciliary muscle, have endeavoured to relieve tension by dividing that muscle. Mr. Hancock, for instance, says: "I always looked upon glaucoma as caused by obstruction of the circulation, a strangling of the bloodvessels caused by spasmodic contraction of the ciliary muscle, analogous to the spasm so often observed in the muscular fibres of the urethra, as well as in the sphincter ani, in certain affections of those parts." In order to relieve this condition, he says: "I introduced a Beer's cataract knife at the outer and lower margin of the cornea where it joins the sclerotic; the point of the knife is then pushed obliquely backwards and downwards until the fibres of the sclerotic are divided obliquely for rather more than one-eighth of an inch; by this incision the ciliary muscle is divided, whilst the accumulated fluid flows by the edge of the knife."[9] Mr. Solomon has devised a similar method, which he terms "intra-ocular myotomy." This is effected "by entering a Beer's cataract knife at the corneo-sclerotic union, and then

FIG. 4.



pushing it through the pillars of the iris into the muscle, the flat surfaces of the blade being opposed on the one side to the sclerotic, and on the other to the rim of the lens. The anterior chamber is generally penetrated, and the posterior put in communication with the wound."[10] The late Mr. Nunneley used to practise a similar operation which went by his name; and quite recently Mr. George E. Walker of Liverpool has recommended a like procedure, which he terms "hypo-scleral cyclotomy." Mr. Walker contends that excessive use of the ciliary muscle is the cause of glaucoma, whether acute, subacute, or chronic; and adds, what is wanted to cure acute glaucoma is rest, perfect and profound, and this, he maintains, can be obtained in no way comparable to that of cyclotomy. He thus describes his operation: "Fix the eye by holding the conjunctiva with toothed forceps; with the narrowest knife possible pierce the cornea at a point opposite to that of fixation, about a line from the sclero-corneal junction; as soon as the point enters the anterior chamber, alter the direction of the knife so as to clear the edge of the lens, thrusting it through the iris for about a line, then, drawing back the knife, cut the tissues up to the sclerotic."[11] The results attained in these cases, when favourable, must have been greatly due to the evacuation of intra-ocular fluids, since post-mortem examinations have demonstrated that the muscle is rarely divided, as Wecker has remarked:—"Les expériences faites sur le cadavre, après avoir exécuté l'opération, prouvent qu'on ne réussit à couper qu'une partie des fibres circulaires et radiées du muscle ciliare, aussi l'opération, n'agit elle qu'à la manière des paracentèses, et c'est ainsi qu'elle peut véritablement être salutaire."[12]

Donders always maintained that glaucoma was caused by irritation of the fifth pair of nerves, and the intimate connexion of the attacks with derangements of the trigeminal and sympathetic nervous system is so marked that one can only wonder that the disease has not been attacked more frequently on that side. I have endeavoured to contribute my quota to this end by galvanising the sympathetic, and Badal proposes to alleviate the symptoms by tearing out the nasal branches of the fifth,[13] an operation spoken of in the highest terms by Lagrange, who, from an experience of eighty-one cases, declares that in glaucoma the pain disappears, tension decreases, and vision improves, even when both sclerotomy and iridectomy have failed to afford relief.[14] I have been asked whether I consider glaucoma as essentially an inflammatory disease. Well, I should say not. I look upon inflammation as an accident of glaucoma—a something superadded; and the simple form where there is no inflammation, and, what is more remarkable, often but slight tension—the old amaurosis with excavation of the optic disc,—as the real type of the disease. It is true that the greatest variety of opinions prevails upon this subject. Von Graefe, for instance, always thought that glaucoma was a serious choroiditis, pure and simple, an opinion apparently shared by Mauthner. Donders, v. Hippel, and Grünhagen hold that the hyper-secretion is caused by irritation of the fifth pair of nerves. Max Knies and Adolph Weber contend that the disease is merely one of retention, Weber believing that it is the swelling of the ciliary processes which blocks the angle of the chamber, and Brailey to a certain extent appears to adopt this view; while Priestley Smith insists that the closing up of the circumlental space is simply due to the increased size of the lens, which, he has shown, is a natural phenomenon of life which goes hand in hand with advancing years. However that may be, it is certain that glaucoma very seldom occurs under fifty years of age, and that women who suffer from climacteric congestions are the most frequent victims, whilst the class of persons most commonly afflicted are those who are naturally weak or poorly fed, who have had troubles, who have used the eyes inordinately for near objects, or whose occupation has necessitated much stooping, and consequent extra- and intra-ocular congestion. The disease is symmetrical, both eyes being affected, though I have known fifteen years to elapse before the second was attacked. The smaller the eye the greater the chance of its becoming glaucomatous, rigidity of the sclerotic being most manifest in hypermetropes—a condition you may sometimes diagnose by a full hard pulse, such as we remarked in the male patient suffering from simple glaucoma. Irregularities of the circulation, such as climacteric flushings, often precede the attacks, and patients are not unfrequently found to be suffering from atheroma, sclerosis, or hyaloid degeneration of the arteries. Whatever reduces tone and relaxes the muscular system is provocative of the disease. "Lorsque je me sens brisé de fatigue, je suis certain de voir mes arcs en ciel," is a remark recently made by one of Wecker's clinique, which contains a lesson for us all. *Per contra*, whatever braces the system, increases the muscular tone, contracts the pupils, and ensures profound sleep (when, I need hardly remind you, the pupils are normally contracted) will tend to dissipate the prodomata of an attack.

From all this it is evident that those who are threatened with glaucoma should observe certain precautions. They should retire early, avoid stimulants and excesses of all kinds, insist upon regular action of the bowels, have glasses

[8] I prefer, myself, to let out the vitreous through the pupil after removal of the lens, an operation which yields marvellous results in cases of advanced glaucoma.

[9] THE LANCET, Feb. 11th, 1860.

[10] Medical Times, May, 1861.

[11] Essays on Ophthalmology. Churchill, 1879.

[12] Traité complet d'Ophthalmologie, p. 697.

[13] The nasal nerve which we are told to divide in Badal's operation is a branch of the ophthalmic division of the fifth, and gives off a filament to the lenticular ganglion, two or three ciliary direct to the eyeball, and at the inner side a considerable branch, the infra-trochlear, which leaves the orbit at its fore part, and is really the nerve which is torn in Badal's operation. Its position is indicated by a line drawn through the centre of the nail when the finger is placed close to the supra-orbital ridge, its tip resting on the side of the nose, or by a line drawn from the angle of the mouth to the inner canthus. The nerve, which lies very deeply, is best got at by cutting down to the bone on each side of it, and then tearing it up by the roots with a strabismus hook. The effect of the operation is supposed to be due to the disruption of the sensory root of the ciliary ganglion, or to an ascending neuritis of the torn nerve extending to the ganglion. Badal's idea was to relieve pain by stretching the nerve. He found, however, as a matter of experience, that tension of the eyeball was also notably reduced. Lagrange considers the operation one of the best in ophthalmic surgery.

[14] Archives d'Ophthalmologie, June, 1887, p. 220.

accurately adapted, use the eyes for near objects as little as possible, get out of doors, and never read or work when lying down, leaning forward, or travelling in a railway carriage. They should also cultivate excitement of a healthy and pleasurable nature, and friends should be instructed to protect them as far as possible from anxiety, worry, contradiction, and those moral emotions of a depressing character, which the cases I have quoted at the commencement of this lecture show us so frequently precede an attack. Thirty years ago the elder Desmarres wrote: "As glaucoma is incurable, it is difficult to suggest any treatment." Now, owing to the labours of von Graefe, we are able to deal successfully with the great majority of acute cases, one-half being restored to excellent sight, and the progress of the disease, as a rule, arrested in the remainder. This remark, however, does not apply to cases of simple glaucoma, for although the *status quo* may be maintained by treatment in a large proportion, and some slightly improved, still we cannot say that we have any cure for the disease, and 20 per cent. are apparently worse for operative interference. What is to be done with these cases? Gentlemen, that is "le grand problème"—the task before us. Von Graefe has conferred a boon, but it appears to me that he has also entailed an obligation; and that it behoves us, in emulation of the great master, not only to work out a rational treatment for cases of simple glaucoma, but also so far to extend a knowledge of our art as to bring within the range of science those numerous and distressing cases of acute glaucoma which are mistaken for other diseases, incorrectly diagnosed, or lost for want of treatment by qualified and experienced practitioners.

NOTES ON THE

TREATMENT OF SOME OF THE FORMS OF DISEASE INVOLVING THE AORTIC VALVES.

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THE purpose of this communication is to consider the evidence afforded by the observation and investigation of actual cases concerning the problems of the treatment of diseased conditions of the aortic outlet. The plan adopted is what I may call the clinical method. No one can estimate more highly than myself the value of that which I may call by way of distinction the scientific method, by which I mean the investigation, by all means of precision available, of the mode of action of a given remedy. The conditions, however, presented by patients who apply to us for treatment are so varied and so varying that even when a medicinal agent has been investigated with rigid scientific accuracy, its practical value can only be tested by the experience afforded by a large number of cases. The scientific method helps us enormously, but for practical purposes it is the clinical method on which in practical therapeutics we must chiefly rely. I have already adopted this plan of observation in the case of some forms of disease affecting the mitral orifice. Perhaps the chief problem presented by these was the selection of agents which, acting as tonics to the heart, should restore and maintain compensation. I considered the action to this end especially of digitalis, caffeine, and convallaria. I concluded that digitalis was especially valuable in mitral regurgitation, with caffeine to supplant it or to enhance its action at intervals, especially when dropsy was a marked symptom; but that convallaria was more efficient for general and protracted administration when necessary in cases of mitral stenosis. I commend this question to the further investigation of practical physicians.

Now I come to consider the treatment of diseased conditions of the aortic outlet. I do not include aneurysm of the aorta nor any external conditions which may affect the vessel. I am obliged to say *in limine* that the difficulties of investigation are much greater than in mitral diseases—the conditions, especially in reference to treatment, are more complex. It is of the first importance to group our cases. I shall do this from the clinical standpoint, appealing only to the evidence of morbid anatomy when such is necessary for the elucidation of the therapeutic problems. The classification of the forms of aortic disease which I propose is (1) Rheumatic, (2) Atheromatous, (3) Traumatic, and (4) Septic or Ulcerative. Of these classes the first two comprise the largest number of cases, so that in most instances the first question which presents itself is whether a patient manifesting the physical signs of aortic obstruction or regurgitation shall be placed in the *rheumatic* or the *atheromatous* division. Of ninety-four private patients observed by myself, twenty-nine were rheumatic (30 per cent.). By this I mean that they presented evidence of disease of the aortic orifice originating in rheumatic endocarditis. In fifty necropsies in cases of hospital patients the aortic valves were thickened in twenty-five, atheromatous in eighteen, and presented vegetations in twenty-two; the changes were directly traceable to rheumatic endocarditis in twenty-two cases, and to atheroma in twenty-one. From all the evidence, therefore, I think we may conclude, if we take our observations from patients of all ages, that the *primâ-facie* chances whether the diseased conditions proceed from rheumatism or from the endarteritis which proceeds to atheroma are about equal. It is clear, however, that rheumatic endocarditis is especially a disease of early life, whilst atheroma is an affection of the later periods, though it is possible for valves which have been altered from rheumatism to undergo atheromatous changes at almost any age. Rheumatic endocarditis may involve the aortic valves in very young children, though it is in early adult life that the disease most frequently attacks them. In 173 cases of all forms of cardiac disease affecting children under twelve years of age I have found the aortic orifice involved in sixteen, of which fourteen were associated with acute or subacute rheumatism or slighter forms of articular pain, whilst in two cases the affection appeared to me to be in definite relation with measles. In these cases of children, eight presented evidence of obstruction at the aortic outlet, and eight manifested aortic regurgitation. Eight of these cases were accompanied by mitral regurgitation; two were double aortic. The tendency to the implication of the mitral was to that of the aortic as nearly five to one (72:15). It is perhaps of practical importance to note that the aortic valves were involved in just as great degree when there were but slight articular phenomena, as when there was the more pronounced and typical rheumatic fever.

I think we may divide, for practical purposes of therapeutics, those patients who consult us for aortic valvular disease which we consider to be distinctly referable to rheumatism into two categories. In the one there are no symptoms referred to the heart and circulation; in the other there *are* such symptoms. It is not very uncommon for a lad or young man to come to us for an affection in no direct way suggesting disturbance of the organs of circulation, and yet for there to be manifest disease at the aortic outlet, obstructive, regurgitant, or both combined. For instance, I have been consulted by a young man of seventeen for incontinence of urine, without the slightest complaint of any symptom to be referred to disorder of circulation or respiration, and yet I have found a loud diastolic murmur of aortic regurgitation, with the heaving impulse of a considerably hypertrophied left ventricle. In the case of a young person, even though there be no history of anterior rheumatism, it is almost safe to conclude that any change, whether of obstruction or regurgitation, at the aortic orifice is due to a rheumatic endocarditis, past or present.

In such cases as that just mentioned there has been, in all probability, a slowly progressing endocarditis, with thickening and retraction of the aortic cusps, the left ventricle gradually becoming hypertrophied and adapted to the new conditions, which have ultimately become quiescent and stationary, so that compensation is perfect. In such a case, I think we may say with confidence that all forms of heart tonics, all drugs whose action it is to enhance the force of ventricular systole, are positively hurtful. It may be well at some periods to regulate the digestive powers, and perhaps to administer such general tonics as iron, strychnia, or arsenic, but any agent which alters the rhythm of the heart should be withheld. The danger in these cases is a new manifestation of the rheumatic process, with attendant endocarditis, and the

importance of preventive measures *quâ* rheumatism should be indicated.

In the greater proportion of our cases, however, of aortic valvular disease of rheumatic origin, there are symptoms which we can refer to some error of compensation—some want of adaptation to the altered physical conditions. We may ask what these signs are. In a large majority of the cases of aortic disease caused by rheumatic endocarditis, the mitral valve is also involved; there is most commonly an accompanying mitral regurgitation, but in some there is no evidence of anything except the aortic lesion. We may inquire whether these differ in their signs and symptoms from those in which the mitral lesion is manifest. I think we may conclude that in the most common cases of mitral regurgitation the failure of the heart power is manifested by a fairly definite train of symptoms—dyspnœa occurring as an early symptom and increasing in severity as time goes on, œdema appearing and gradually advancing,—but pain at heart, in my experience, though it may exist, is not a very marked and notable, and not a very early symptom. On the other hand, I have found that in the rheumatic cases in which the aortic orifice is involved, whilst there is no evidence of structural imperfection of the mitral, pain and distress directly referred to the heart are marked and notable symptoms. This pain, in some cases, graduates through many stages to a nearly constant condition of extreme distress; in others it is variable, occurring as a spasm, associated in some cases with faintness, in others with palpitation, and in rare cases presenting the character of angina. It is considered by many that signs of angina are more frequent in cases of aortic disease associated with atheroma, but I have seen some cases in distinct relation with the rheumatic forms of aortic disease. For instance, in a lady aged thirty-one, in whom the signs were those of aortic stenosis in all probability of rheumatic causation, there was the manifestation of true angina pectoris. In another case, a man aged twenty-one, long under observation with aortic obstruction and regurgitation, mitral regurgitation, and tricuspid regurgitation, after the manifestation of signs of deep distress at intervals during two years, began to exhibit signs of defined angina with intense agony. In another case a man of twenty-five, admitted into hospital with acute rheumatism, attended with signs of aortic obstruction and incompetency with mitral regurgitation, there developed whilst in hospital attacks of true angina, which were promptly arrested by the inhalation of nitrite of amyl.

It is in the rheumatic rather than the atheromatous forms that we find examples of very free regurgitation. It would seem that in many cases the fibrous change following the exudation and cellular infiltration of rheumatic endocarditis in the valve and its neighbourhood is brought about too rapidly for compensatory hypertrophy to occur *pari passu*. It is scarcely important, I think, to debate whether in case of such imperfection of the valve hypertrophy of the ventricle precedes dilatation or *vice versâ*. It appears to me most probable that this is a question of nutrition—if the nutritive needs of the ventricle are adequately supplied so that the increased intra-ventricular pressure can be antagonised, then hypertrophy, if not, then dilatation. In a large proportion of the cases, when the storm of endocarditis which has induced disease at the aortic outlet has apparently subsided, there are some signs of trouble as regards the heart or circulation. Probably our first impulse is to aid the ventricles by administering digitalis or some other cardiac tonic. Observers seem to be much divided on the question whether or not it is advisable to administer digitalis in cases manifesting aortic regurgitation. On this point I have the following observations to offer:—

1. It has appeared to me that in some cases of aortic disease associated with rheumatism digitalis has positively increased the distresses and the dangers of the patient. For instance, in a case manifesting a systolic and diastolic murmur at the base, with systolic murmur at the apex and signs of considerable cardiac hypertrophy, but evidence of ill compensation afforded by the gradual on-come of œdema and dyspnœa, the temperature being then slightly subnormal, four minims (only) of tincture of digitalis were given in the ordinary diuretic mixture three times a day. The following day there were frequent attacks of urgent orthopnœa, intense anxiety, sweating, and pain at the heart of the character of angina. I was so convinced that in this case digitalis was likely to act as "the opium of the heart" and to allay the symptoms, that I tried the subcutaneous injection of one-fiftieth of a grain of digitaline. I soon found that the drug aggravated the distress; improvement followed the administration of five-minim doses of tincture of aconite and the occasional inhalation of nitrite of amyl (see Figs. 1, 2, 3, and 4). In another case, in which there were signs, in addition to those in the former case, of tricuspid regurgitation, no digitalis, but five-minim doses of tincture of aconite were ordered. The pulse-rate was then 140. Three doses were given during the night, and then it fell to 132, afterwards to 128, and in the morning it was 88 and the patient much relieved.

FIG. 1.

Sphygmogram (right radial) in a case of aortic insufficiency resulting from rheumatic endocarditis, treated by four-minim doses of tincture of digitalis.

FIG. 2.

Sphygmogram in the same case after hypodermic injection of one-fiftieth of a grain of digitaline.

FIG. 3.

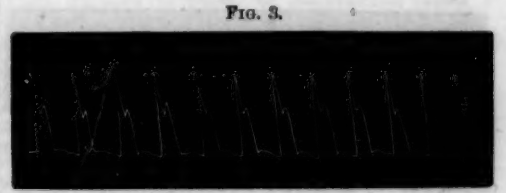
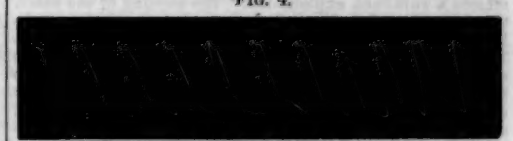


FIG. 4.



Sphygmograms after treatment by five-minim doses of tincture of aconite and occasional inhalations of amyl nitrite.

I may here mention a third case, that of a female aged thirty-eight, manifesting aortic obstruction and insufficiency and mitral regurgitation, with hypertrophy and dilatation of the heart, in whom the subsidence of all cardiac distress, and probably the establishment of good compensation, were brought about without the administration of any agent having a special action upon the heart, whether tonic or sedative. In the case I mention, rest in bed for four weeks, with an occasional purgative, and sometimes the administration of a draught of sulphuric ether, ammonia,

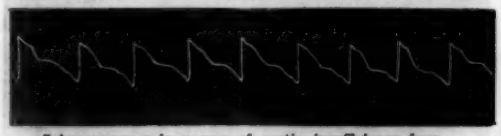
and compound tincture of camphor, were the only therapeutic means adopted. (See Figs. 5 and 6.)

2. A second objection which may be urged against digitalis in rheumatic aortic disease, from the experience of my cases, is that in a few instances, though there may be no manifestly adverse signs to its employment from its action on the heart, it nevertheless causes sickness, and the patient is intolerant of it. In the case of a boy of twelve, in whom this occurred, convallaria was substituted, and the boy manifested great improvement in all ways. (See Fig. 7.)

3. A third objection which may be brought as an indictment against digitalis—and the validity of this may not be so susceptible of direct proof—is that, though no evidence of any immediately baneful effects of the drug is forthcoming, death has occurred in such manner as to give rise to the opinion that there may be some relation between the administration of the drug and the fatal termination of the case. I was led to think this possible many years ago, when a patient of mine at the Royal Chest Hospital, City-road, London, with aortic regurgitation, who had greatly improved under a course of digitalis whilst an in-patient, and was permitted to continue the course as an out-patient, died suddenly in the street. Of course it is acknowledged that in this form of cardiac disease sudden death not unfrequently

FIG. 5.

FIG. 6.



Sphygmograms in a case of aortic insufficiency from rheumatic endocarditis before and after treatment by rest, without the administration of heart tonics.

FIG. 7.

Sphygmogram showing good tension in a case of aortic disease (rheumatic) treated by extract of convallaria, with signs of much improvement.

occurs. But why should this be when there are manifest signs of improvement? I think the physiological action of digitalis affords a sufficient explanation. The slowing of the heart, the elongation of the diastolic period, salutary within certain limits, becomes baneful when these limits are overstepped. Then the individual through the imperfectly closed aortic orifice bleeds into his own left ventricle; and if he happen to be in the erect position the encephalon suffers in the greatest degree from this abstraction of blood. Thus ensues syncope, and the syncope may be fatal. My own opinion is that there is some validity to the objection urged against the employment of digitalis in aortic regurgitation when such regurgitation is considerable, even though there may be for a long period signs of improvement under its use. I think the proposition should be strongly enforced that it is undesirable for a patient with aortic regurgitation, when such exists in considerable degree, to continue to take digitalis without medical supervision for long periods. The course that is legitimate enough in cases of mitral regurgitation is to be deprecated in those of aortic regurgitation.

From the foregoing considerations, therefore, I must conclude that in certain cases of the affection we are now considering digitalis is positively hurtful. We may next inquire whether any other agents having a tonic effect upon the heart fibre may be with advantage substituted for it. I have already quoted an instance in which convallaria advantageously replaced digitalis; in others temporary relief has followed the administration of caffeine. I do not propose to consider the evidence concerning strophanthus, which may prove valuable, because I consider my data as insufficient. I shall further consider the effects of caffeine and convallaria when we come to consider the cases of aortic disease caused by atheroma.

It is appropriate now to turn our attention to a section of the rheumatic cases in which, though no adverse signs as regards the action of the special cardiac tonics employed have been manifested, all has appeared unavailing, and there has been a steady advance of the cardiac trouble without any evidence of good results from *any* of the agents employed. This has happened in a few instances, and it behoves us to investigate the cause. I will mention a case in illustration. Miss A——, aged twenty-two, with a history of subacute rheumatism, manifested loud systolic murmurs at base and apex. There was marked anæmia. Digitalis, in the form of the tincture first and the powdered leaves subsequently, together with iron, were administered carefully and regularly for five weeks. There was no improvement. The tension of the pulse continued extremely low; there was no pyrexia, but simply a general enfeeblement. Then twenty-minim doses of the tincture of convallaria majalis were tried for a fortnight, but there was no response. A suspension of the cardiac remedies, with the administration alone of iron and nux vomica and other general tonics, proved equally unavailing. Subsequently caffeine was found powerless over the failing ventricle, and, in spite of the most tender nursing and care, death took place in the course of about twelve weeks from the first observation. It is probable that other physicians have had similar painful experiences with this. To what can we attribute the absolute failure of cardiac tonics in such a case? It seems to me most probable that there is in some cases initiated by rheumatism a very protracted course of endocarditis, and that with this the cardiac muscle is impaired, for I am convinced that in the path of the endocardial inflammation there is a widely spread involvement of the muscular fibrillæ and the surrounding structures, which are infiltrated with cellular elements. The muscle cannot respond to the influence which under normal conditions stimulates its energy of contraction. Of course the question occurs, in a similar case what can we do? The first portion of the answer to this question is, I think, to treat with rest and care the slight manifestations of the anterior rheumatism. In a young subject manifesting some pyrexia with pains in the joints, even though these be very slightly marked, anæmia, and especially quick pulse with irritability of heart, one should enforce the importance of rest. I cannot resist the conclusion that the treatment by salicin or the salicylates, which so wide an experience demonstrates to contribute to the comfort of the patient in acute rheumatism, tends also to manifest a favourable influence on the cardiac complications. It is true that we have no direct statistical evidence of the value of the treatment as regards endocarditis; for the ratio of heart complications appears to be about the same in those treated by other methods, but it is probable that at the time of the available statistics the treatment had not been commenced sufficiently early, and probably the slight manifestations in the young had not been treated at all. I have been very careful in this paper, hitherto, to keep closely to the strictly legitimate conclusions from observed facts, but I may hazard the opinion, not perhaps to be substantiated by positive evidence, that the forms of cardiac disease as observed now in patients treated by the salicylates are not so extensive and severe as they were formerly, when patients were not so treated. I have distinct and indisputable evidence that in some cases manifesting aortic disease, though no articular phenomena were in existence, the administration of the salicylates in full doses has been followed by a marked amelioration of the symptoms referable to the heart. I may be permitted to formulate my conclusions as to the treatment of disease of the aortic valves resulting from rheumatic endocarditis:—

1. In all cases manifesting signs of disease at the aortic orifice, whether obstructive or regurgitant, if there be an immediate association with acute or subacute rheumatism, it is of the first importance to counsel complete rest in bed. The observance of such rest is sometimes sufficient to allow a complete compensation to be brought about.

2. In such cases digitalis and other special cardiac tonics should not, as a rule, be employed until time has been given for observation, and for the use of appropriate means to subserve general nutrition.

3. In cases in which there is reason to believe that the lesion is chronic, in relation with a remote attack of rheumatic fever, with no evidence of the recent existence of subacute rheumatism, the administration of digitalis, convallaria, or caffeine is indicated, but a prolonged course of any or either of these agents is undesirable. It is better that they be administered for periods of one or two weeks, and then that general tonics be alone prescribed; for, the energy of the ventricles being once increased, this may be maintained without the aid of agents specially influencing the cardiac muscular fibre; and in aortic disease agents which considerably modify the rhythm of the heart are not without danger.

4. In the case of a young subject in whom there is no evident manifestation of rheumatism, and yet a very low tension of pulse, which cardiac tonics fail to modify, it is probable that rheumatic endocarditis is in progress, and absolute rest with the administration of the salicylates should be counselled. *(To be continued.)*

CASE ILLUSTRATING THE

ADVANTAGES AND RISKS OF PURGATION DURING CONVALESCENCE FROM ABDOMINAL SECTION.

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LAST September Sir Spencer Wells removed a large ovarian tumour from a patient fifty-seven years of age, and he has kindly permitted me to publish the following notes of the case.

The pedicle of the tumour was very broad, and had to be secured in several pieces by stout silk ligatures; but otherwise the operation was a simple one. After operation the patient complained of much abdominal pain, and a drachm and a half of tincture of opium was administered by the bowel in the first twelve hours. The pain continued, and a drachm and a half of laudanum, gradually reduced to a drachm, in the twenty-four hours, was given for the next four days, after which the administration of laudanum was discontinued. After the operation the temperature of the patient gradually rose, and at 9.30 P.M. on the following day it was 101·4° F. in the axilla; it then gradually, but not very steadily, fell till the fifth day, when it was as low as 98·6°.

Sir Spencer Wells went abroad on the third day after the operation, leaving me in charge of the case. On the evening of the third day, and all through the fourth day, there was a tendency to sickness and abdominal distension, but flatus passed freely from the rectum. On the fifth day that portion of the bowel was found to contain fæces, and a small enema produced a copious evacuation, after which the feeling of sickness and the distension passed off. The action of the bowels was followed by considerable pain in the right groin about the position of the pedicle, and the temperature rose in a few hours to 100° in the axilla, but again gradually fell to 98° on the seventh day after operation. The bowels moved seven times between the fifth and tenth days, and much flatus also escaped. During this time, however, the pain in the right groin increased, until the patient could not bear the slightest pressure over this part. The rest of the abdomen became slightly distended, but was free from tenderness. The administration of one-sixtieth of a grain of atropia and one-twelfth of a grain of muriate of morphia, repeated every four hours, eased the pain; but the appetite became very bad, and the patient felt constantly sick after the eighth day. She also lost strength, and her pulse, which had been down to 84 and of good character, gradually rose to 100, and became very feeble. On the tenth day her temperature, which had not been above 98·6° for two days, also began to rise a little, and reached 99·6° in the axilla at 9.30 A.M.; she had been very restless all night, could not take any food, and felt very sick, while the abdomen had become more distended. This grouping of symptoms after abdominal section I have learned to associate with obstruction in the bowels, which may lead to a rapidly fatal termination of the case. In the belief therefore that my patient was in extreme danger from this cause, and that the best method of treatment of this condition at this stage is by the administration of a purgative, I gave her a pill containing one-third of a grain of calomel and as much jalap, one grain of compound extract of colocynth, one grain of extract of aloes, one-twentieth of a grain of jalapine, and a little ginger. The patient had frequently used similar pills, prescribed by her own medical attendant, Dr. Morley of Blackburn, and they had moved the bowels gently during health. On this occasion the pill produced two small loose motions, and a dose of Hunyadi water, given next morning, was followed by other loose motions. The last of these was at 5 P.M. on the eleventh day after operation. Twelve hours after the pill was given the temperature had risen to 100·6° in the axilla, perspiration was extremely profuse, and the patient had become alarmingly weak, but she was then able to take food without feeling sick. After the bowels were quiet twenty minims of tincture of opium were given by the rectum, and the patient had a good night's rest. She was much stronger next morning, and this improvement continued. The pain in the right groin, however, became more severe, and the tenderness radiated over the abdomen to some distance from this part. The temperature continued feverish but irregular till the thirteenth day, when it fell to normal and remained so. On this day also the pain shifted upwards and towards the right loin, and next morning there was only slight tenderness on pressure in the groin and none in the loin. Now, however, the patient at once complained of pain when I applied pressure over the colon in the region of the gall bladder. The seat of tenderness afterwards shifted from time to time along the course of the colon, and finally was found low down in the left groin on the fifteenth day after the operation. The bowels had then been quiet for four days, and I warned the patient that she would probably soon have an action of the bowels with considerable pain. That afternoon several large, very hard fæcal masses passed into the rectum, whence they were removed with some difficulty by the nurse, after which recovery was uninterrupted.

This case is very instructive in connexion with the question of the administration of purgatives during convalescence from operations for abdominal tumour. It is evident that the masses of fæces which were removed on the fifteenth day after operation were the cause of all the difficulty and danger in this case, by producing a partial obstruction in the bowel. The fæcal accumulation had been impacted in or near the cæcum, and the efforts of the bowel were insufficient to remove it, probably on account of the condition of paresis of the intestines which I have shown follows abdominal section, and is "an important factor in the production of obstruction of the bowels in these cases."[1] When, however, the impacted mass was dislodged by the aid of the purgative medicine, the sickness and distension at once disappeared. At the same time the temperature of the patient rose distinctly, and this in spite of a most profuse perspiration; pain in the groin became more severe and diffuse, and the patient's strength failed alarmingly. It is evident, then, that in this case purgation relieved a partial obstruction in the bowel, but at the same time increased, or rather renewed, the inflammation in and around the pedicle. Many cases have taught me that this is the way in which purgation may be beneficial during peritonitis after abdominal section. Purgation during peritonitis may therefore be necessary and proper treatment, but it is inaccurate to say that the purgation cures the peritonitis. On the contrary, the fact must be recognised that the administration of a purgative in such cases is resorted to at the risk of increasing the severity of any inflammation implicating the wall of the gut; and in severe constipation, even when there has been no recent inflammation, a smart purge may produce a great deal of inflammatory action in and around peritoneal adhesions. Might not the explanation here given apply to the interesting case published by Mr. Frank Sturges in THE LANCET of Oct. 15th (p. 757)? As in cases of large abdominal tumour it may be very difficult or impossible to thoroughly clear the bowels, so, during pregnancy, constipation is not uncommon, and women, especially of the poorer classes, are often very careless in this respect. After Mr. Sturges' patient

[1] Vide abstract of paper read before the Royal Medical and Chirurgical Society, THE LANCET, Oct. 29th, p. 880.

took the pills under the circumstances he describes, she had "two actions of the bowels causing such intense pain that she twice fainted"; and, as in the case I have recorded, purgation was accompanied by rise of temperature and increase in the severity of the abdominal pain, while the patient became "so very ill that" Mr. Sturges "hardly thought she could recover"; but as soon as the bowel passage was made free the intestinal symptoms disappeared, and the patient steadily improved.

Bryanston-street, Portman-square, W.

A CONTRIBUTION TO THE

SURGICAL TREATMENT OF GALL-STONES.[1]

BY W. A. MACKAY, M.B., C.M.ED.

MARIA ALVAREZ G——, aged forty years, married, has had five children, of which two are still alive. She has been in the habit of suckling her children for twenty months each, but her last child she weaned at fifteen months of age. In her family history she knew no instance of jaundice or of malignant disease. But, from what I have since heard, it is probable that her father died of cancer of the stomach. In the beginning of March, 1886, the patient gave the following account of her illness. Eight months previously, while nursing her youngest child, she began to feel unwell and became very bloodless; she therefore weaned the child, and took as a tonic arsenic and iron. Still, her condition grew worse, and she began to suffer great pain in her back and chest; and about this time one of her friends remarked that her eyes were yellow. Then she took to bed. When fifteen days in bed she became jaundiced, but feeling somewhat better she began to go about again, although the pain and jaundice persisted. Last Christmas she felt a swelling in the situation of the gall bladder. Being somewhat alarmed, she drew the attention of a female friend to this region, but, to her surprise, the swelling had disappeared. The patient, seeking for an explanation of this phenomenon, soon found that the swelling was generally present at night but absent in the morning. During the three months before I saw her, menstruation, which till then had been normal, ceased to occur, being, in the patient's opinion, replaced by a flow of blood which took place from the gum near the last right lower molar on its outer aspect. The bleeding was painless, and made itself felt by flowing into the mouth. Very soon it ceased to flow and became a mere oozing. This oozing of blood from the gum lasted four or five days, as the patient's menstrual period had always done, and it occurred on each successive period during a term of four months. Afterwards fluid began to collect in the abdomen and had steadily increased.

On examination I found the patient deeply jaundiced, and suffering from great abdominal distension. I could with difficulty make out a rounded body where she had formerly observed the intermittent swelling. Examination of the chest revealed nothing abnormal. Since the patient came under observation the pulse had generally been over 100; the temperature normal; the urine free from albumen, but deeply bile-stained; the motions, generally two a day, formed and of a clayey-white colour, evidently without bile.

On March 27th I tapped the abdomen below the umbilicus and drew off 400 ounces of fluid, deeply bile-stained. The abdomen was now so flaccid that its anterior wall bulged slightly over the situation of the tumour, and a careful examination left little doubt that we had to deal with a distended gall bladder. The liver was slightly enlarged, and presented a smooth regular border. The patient was most anxious to have something done which would relieve her of pain, which was at times intense, and which she affirmed was worse after meals. Being of opinion that she suffered from impacted calculus, I determined to operate.

On March 28th the ascites had returned to such an extent that there was evidently no time to be lost. Therefore at 4 P.M. the following operation was performed in a large empty room of a private hospital. Transfixing a small fold of skin over the prominence of the tumour, along the external border of the right rectus muscle, about midway between the margin of the ribs and the umbilicus, I dissected down and exposed the peritoneum. On opening the cavity a considerable amount of ascitic bile-stained fluid escaped, and the base of the gall bladder presented itself in the wound. Here an assistant steadied it with a hook while I drew off its contents by means of a trocar. The gall bladder was distended to about the size of a large pear, and its contents seemed to consist of a sticky bile. Withdrawing the trocar, I enlarged the aperture in the fundus upwards where it seemed least vascular, and on inserting the little finger of my right hand I felt a calculus impacted in the cystic duct. With the index finger of the left hand in the abdominal cavity outside the gall bladder, acting against the little finger inside, I extracted the calculus without injury to the duct. After I had ascertained that there were no more gall-stones, the aperture in the gall bladder was secured to the lips of the abdominal incision by means of a continuous silk suture. The incision in the abdominal wall measured less than two inches, while the aperture in the fundus of the gall bladder was just enough to allow the exit of the stone. No vessel was met with which needed ligature, nor was there the smallest inconvenience from bleeding. The calculus weighed 2 grms. 60 centigrms., and was about the size of an olive. Antiseptic precautions consisted in previously boiling the needles and silk in a solution of carbolic acid. A slight dressing of absorbent cotton wool was fastened over the wound with plaster, and over all was placed a fine flannel binder. The patient rallied at once from the operation and expressed herself as feeling very well and free from pain. The anæsthetic employed was a mixture of chloroform and ether.

March 29th.—Wound dressed at 10 A.M.; temperature 99·8°; pulse 96; skin around wound deeply stained with bile, which flowed freely from the fistula, drenching the absorbent dressing and soaking through to the mattress. The patient was placed on milk diet with a little cornflour. She had passed two motions during the night, formed, but without bile. The wound healed rapidly by first intention.

With a view to ascertain the quantity of bile poured out, an abundant dressing of absorbent wool was weighed daily at 10 A.M., before putting it over the wound, and again on removal the following day at the same hour. The table annexed will show the quantity of bile excreted every twenty-four hours.

Date.	Quantity of bile in 24 hours.	No. of motions in 24 hours.	Temperature.		Pulse.	
			10 A.M.	10 P.M.	10 A.M.	10 P.M.
1886.	Grammes.		Degr.	Degr.		
March 30	112	3	99·0	100·5	80	100
,, 31	110	2	99·4	100·5	96	108
April 1	112	5	100·6	101·4	110	106
,, 2	60	2	99·0	100·4	98	112
,, 3	77	6	98·5	101·0	110	120
,, 4	62	5	98·4	101·4	114	108
,, 5	86	8	99·8	101·0	100	108
,, 6	75	7	98·5	100·4	100	100
,, 7	103	6	99·0	100·2	96	112
,, 8	67	4	99·2	99·2	104	108
,, 9	85	7	98·4	98·4	96	96
,, 10	58	3	98·4	99·8	96	104
,, 11	77	2	98·4	100·2	108	108
,, 12	77	4	98·4	100·0	104	104
,, 13	65	3	99·0	101·0	112	100
,, 14	77	3	99·2	101·0	108	110
,, 15	82	4	98·4	98·4	104	104
,, 16	73	5	99·0	101·0	100	108
,, 17	70	6	98·4	99·0	108	104
,, 18	61	5	98·4	100·8	104	98
,, 19	68	1	98·4	100·0	102	104
,, 20	80	3	98·4	99·8	104	102
,, 21	58	4	98·4	100·2	100	104
,, 22	67	3	100·0	101·2	120	125
,, 23	53	4	99·8	100·8	112	120
,, 24	1	2	99·8	100·6	96	104

On April 1st ascites was again noticed, and the patient was much troubled by flatulence. She was ordered Hunyádi Janos water. After taking some cornflour and milk she vomited, and the vomit seemed to contain bile. On the 3rd it was noted that the ascites had almost disappeared, but flatulence distressed the patient. She took Hunyádi water again. On the 6th her motions contained traces of blood, which passed off on the 9th. Then her general condition improved considerably, and she was able to sit in her chair a few hours daily. At this time she took large quantities of milk, cornflour, custard, and beef-tea. She had no pain since the operation, and was very cheerful; but fluid was

[1] Read at the annual meeting of the British Medical Association at Brighton.

again accumulating in the abdomen. In this way she went on with, but little change, till the morning of April 23rd. On that morning the flow of bile ceased suddenly, so that the dressing removed on the morning of the 24th only contained a trace. The ascites had become so distressing that I tapped, drawing off on the afternoon of that day 294 ounces of a bile-stained fluid containing a considerable amount of blood. After this the record is that of a patient dying slowly, but without pain, of an incurable disease. On May 8th she died. The post-mortem examination revealed cancer of the pancreas and liver, especially the left lobe. The common bile duct was completely occluded, and perforation had occurred at its origin.

Remarks.—On reviewing the case, it appears to me that the tale of her illness as told by the patient is a history of biliary calculus. The intermittent character of the tumour she felt in her abdomen seemed rather to indicate calculus causing obstruction than stenosis of the duct from malignant disease; while the transitory jaundice referred to by her friend and the colicky pain shooting through to the back were alike characteristic of gall-stones. I expected to find a calculus causing obstruction of the common duct, and on finding that the only stone present was fixed in the cystic duct, I concluded that its presence had occasioned hepatitis and catarrh of the common duct. The smooth regular border which the right lobe of the liver presented favoured this view. No doubt the ascites, the frequent pulse, and evening rise of temperature indicated a malignant origin. On April 7th I telegraphed to Mr. Lawson Tait, desiring his opinion with regard to treatment of the fistulous opening in view of the excessive flow of bile. He very kindly replied at once, and wrote to me saying that the condition was new to him, but that he suspected malignant disease. The sudden stoppage of the flow of bile from the fistula was no doubt due to perforation of the common duct, and to the same cause we may attribute the presence of blood in the abdomen. The occurrence of monthly bleeding from the gums, which was noted by the patient, cannot, I think, be regarded as in any way related to menstruation, when we consider the pathological conditions presented by the case.

Huelva, Spain.

POISONING BY COCAINE ADMINISTERED SUBCUTANEOUSLY.

BY BERNARD PITTS, M.C.

WITH reference to the annotation in THE LANCET of Dec. 3rd, on Poisoning by Cocaine, the following case may prove of interest. I am indebted for the careful notes to Mr. Calvert, assistant house-surgeon to St. Thomas's Hospital. My attention was called to the case in the out-patient room by Mr. Calvert as one of cocaine poisoning. At first sight the patient's condition suggested the probability of a nervous attack, but it was soon obvious that this was not a sufficient explanation. The symptoms shortly afterwards became alarming, and gave rise to grave apprehension as to the result. There is no reason to suppose that the injection in this case was made into a vein, and the preparation of cocaine was the same as had been used in other cases in the out-patient room. The drug is now in very general use for minor operations, and few cases have been recorded where toxic effects have ensued. I have several times noticed slight indications of constitutional effect, but used the drug oftentimes much more freely than in this case, without anxiety. I can now no longer regard the drug as free from risk, and shall be more cautious for the future, especially when the patient has not had the drug tried on him before, for there must doubtless be some peculiar idiosyncrasy in the subject when such marked symptoms arise.

The patient, a boy aged thirteen, came to the out-patient room at St. Thomas's Hospital on Saturday, Oct. 22nd, suffering from a suppurating sebaceous cyst situated in the middle of the forehead. This had previously been opened by a local practitioner some time prior to his application at the hospital, but the incision having healed the matter had reaccumulated. It was therefore decided to evacuate the contents and scrape out the interior of the cavity under cocaine. For this purpose two grains of hydrochlorate of cocaine were dissolved in thirty-five minims of water, and of this solution twenty-five minims were injected through two punctures, one on each side of and close to the abscess cavity. The solution was injected at 2.30 P.M. Within five minutes of the injection, the patient became pale and very restless, with hurried respiration and a rapid pulse (120). The abscess was quickly incised, the contents evacuated, the interior scraped, and the wound dressed. The symptoms shortly afterwards became alarming. The patient was exceedingly restless, constantly shifting his position, throwing his arms and legs about, and wringing his hands. The heart's action became tumultuous; the pulse at the wrist was irregular, rapid, weak, and almost imperceptible; the respirations were rapid, shallow, and irregular; and the pupils were dilated. The patient appeared in great distress; removed his collar and unbuttoned his shirt, so as to expose the chest. Meanwhile, half a drachm of aromatic spirit of ammonia was administered, and, the symptoms continuing, the dose was repeated a few minutes afterwards. Nausea and retching, with eructations, set in at 3.15 P.M., the patient complaining of great pain in his "stomach." This pain was markedly increased on firm pressure over the epigastrium, but was relieved by friction. Half an ounce of brandy was administered, and friction applied to the epigastrium. The patient's condition improved; the pulse, though rapid, became stronger, and the respiration slower and more regular. The dose of brandy was repeated, and a mustard poultice was applied to the epigastrium for fifteen minutes. The symptoms at 4 P.M. continued as before, but were less marked. The patient still complained of pain in his stomach, and lay on his left side with his legs drawn up. He said "he felt better," and was not so restless. At 4.45 P.M. he was removed to the ward, placed in a warmed bed, and hot bottles applied to his feet. He now improved rapidly. He was sick and vomited before 6 P.M., after which there was little to record.

The patient never lost consciousness, and was quite rational when spoken to throughout the persistence of the symptoms. The local anæsthesia was certainly not well marked at the time of the operation; afterwards it was not tested. Taking twenty-five minims of the solution as injected, this would give one grain and a half of cocaine, but owing to some of the solution being spilled and some escaping from the punctures on withdrawal of the syringe, it is in excess of the amount actually injected.

Harley-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CONGENITAL MALFORMATION OF FOREARMS AND HANDS, WITH CONCOMITANT ATROPHY OF THE BICEPS AND BRACHIALIS ANTICUS MUSCLES.

BY G. C. WILKIN, M.R.C.S., L.S.A.

THE following case came under my observation whilst off the coast of China on board the steamship *Palamed*:—

The man, a Chinese coolie, was about five feet in height, and in appearance remarkable for his childish expression and the absence of a pig-tail, such hair as was present on his scalp being short, grey, and stubbly. His lower limbs and body were perfectly normal. His hands, both of which were small, consisted of the four fingers and their corresponding bones and muscles, the thumbs being absent. There was a difference in the arrest of development on the two sides. *Right side:* Carpus—slight trace of trapezium and scaphoid bones; entire absence of pisiform bone. Forearm—Styloid process of the radius absent. Styloid process of the ulna hypertrophied. Both bones dislocated backwards and outwards from the humerus. Humerus normal. Biceps and brachialis anticus small, but fairly well nourished. *Left side:* Carpus—Absence of trapezium and scaphoid, also of the pisiform bone. Forearm—Radius an inch and a half long, joining the ulna at its lower extremity, its upper extremity being dislocated outwards. Ulna from the junction of the radius to the styloid process hypertrophied; above this normal. Humerus convexly curved forwards and outwards. Entire absence of the biceps and brachialis anticus muscles. There was very slight power over the movements at the wrists, but the fingers were well controlled by their muscles.

The family history was difficult to obtain. He had no

brothers or sisters, and his father and mother, he said, were quite healthy and well developed.

The measurements of the two upper limbs are as follows:

		Right.	Left.
Arm	Length	11 in.	10½ in.
	Circumference	7½ in.	5½ in.
Forearm	Length	6½ in.	4½ in.
	Circumference	6½ in.	5½ in.
Hand	Circumference round knuckles	7 in.	6 in.

Hyde-park-street, W.

ALOPECIA AREATA.

BY E. ST. GEORGE QUEELY,
MEDICAL OFFICER, MAYTOWN HOSPITAL AND PALMER DISTRICT, NORTH QUEENSLAND.

A VERY remarkable case of alopecia areata came under my notice in 1883, and although my patient thought it had disappeared some fourteen months ago, he has just returned with the disease appearing as bad as ever. As little or nothing can be derived from the different text-books on the subject, I thought some of the readers of THE LANCET might be interested in the case, and furnish me with some fresh mode of treatment. The following is the history.

J. E——, male, aged thirty-three, first came under my notice in November, 1883, and exhibited a bald spot about the size of a sixpence in the front of the scalp. It was circular, and had a peculiar ivory-white appearance, without pain or irritation. What struck him first was that the disease originally commenced under his chin and extended slowly round, removing the stubbles (he shaved regularly), and giving his lower jaw the smooth white appearance. This he overlooked, and did not get any advice until it commenced in the head. I first blistered the spot with liq. epispasticus, then used sulphurous acid and ordered tonic medicines. As the disease extended, my patient left for England. On the voyage several spots appeared, and on arriving in London he consulted Dr. J. Hutchinson, who ordered chrysophanic acid combined with white precipitate of mercury. This was used for some time, and as the spots by this time were very large, my patient had his head shaved, thinking by doing so he could better apply the ointment. From London he went to Glasgow, and there saw Dr. McCall Anderson. This gentleman examined his head carefully, and told him he thought it might be a long time before the hair would recover, and that the disease would spread further. He ordered tonics and the ungt. cantharides (P.B.). This treatment continued for some months, the head being kept shaved and the ointment applied night and morning. However, gradually the disease spread to eyebrows, moustache, pubis, and, in fact, all over the body, so that in about twelve months the man was perfectly denuded of hair, even to the few silky down ones on the fingers. Whilst in England he had a bad attack of intermittent fever, followed by herpes zoster and mumps. In 1885 white silky hairs (lanugo) appeared all over his head; these were replaced several times by a fresh growth, which became stronger and darker. In 1886 he left England for Queensland, thinking the disease cured, and each month the hair grew stronger and darker, and when I saw him on his return he had a good head of hair; his beard was also strong. Whilst in England he constantly wore a wig. He recently called on me in a great state of excitement to inform me that the disease had returned, and on examining him I found several spots again on his head having all the appearance of alopecia. I have been lately using the "liniment crinale" of Squire, but, I think, without effect.

Now, I should like to know if there is any cure for the disease, or if it is, like many others, incurable. I have examined the hairs, but could distinguish nothing to warrant it being called parasitic. The bulbs were atrophied and shrivelled, and in many the ends were split, resembling a brush. There were also some irregularities and nodular swellings of fat near the roots. The disease seems to me to be one of malnutrition of the scalp, but from what cause I know not. I should mention one peculiar fact: whenever the man bathes, or has cold or hot baths, on drying himself his skin becomes terribly itchy, this irritation lasting some time.

A RARE PRESENTATION IN MIDWIFERY.

BY T. PATTERSON DEVLIN, L.R.C.P. & S. EDIN.

A SIMILAR case to that related by Mr. Buchanan in your issue of Dec. 3rd, came under my notice. Early on the morning of Oct. 9th, 1884, I was sent for by the midwife. On arrival she informed me that the cord had been coming down, but that she had been able to keep it quite right. Upon examination I found this quite true, but that a hand was also presenting alongside the head. In a short time I was able to place the loop of the funis well up out of danger, then, having applied the forceps, I pushed the hand up over the face, and safely delivered a living child. There is no doubt that the life of the child was largely due to the midwife's early recognition of the condition of matters, promptly sending for assistance, and her close attention to the condition of the funis until I arrived.

Carlisle.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

TWO CASES OF DISEASE OF THE TIBIA IN WHICH THE KNEE-JOINT WAS INVOLVED IN ACUTE SUPPURATION; CONSERVATION; RECOVERY.

(Under the care of Mr. EDMUND OWEN.)

THESE cases were brought before the notice of the members of the Medical Society of London at the meeting on the 19th, a report of which appears on p. 1270. The notes were taken by Drs. Penrose and E. J. Lewis.

CASE 1.—A boy of seven years was admitted from an orphanage in May last, on account of a small sinus below the inner tuberosity of the right tibia, from which pus was constantly oozing. There was a good deal of thickening about the head of the tibia; the knee was flexed. On July 27th he was placed under chloroform, and Mr. Pitts scraped out an abscess cavity which started from the junction cartilage and extended into the upper epiphysis. By the middle of August the wound was almost healed, but soon after this the knee swelled up, and became hot and painful, and the boy's temperature ascended to 103·4°. It was evident that the ulceration in the epiphysis had extended through the articular lamella, and had implicated the knee joint. The boy was extremely ill, and, considering the old-standing affection of junction cartilage and epiphysis, the prospect of ultimately saving the leg did not seem bright. The suppurating joint was laid open by a bold horse-shoe incision, which passed through the ligament of the patella. The synovial membrane was found to be swollen and injected, and an ulcer was seen upon the inner articular cartilage of the tibia, through which a probe could be dropped into the original abscess cavity. The tibial abscess cavity and cloacæ were scraped out, and, together with the knee joint, were thoroughly washed with a weak mercuric solution. The joint was then drained through the head of the tibia, and through the popliteal space. Everything went on well; the wounds have entirely healed, and the boy is going about on crutches wearing a Thomas' splint. The knee is not quite straight—it could never be got so; and what may be the ultimate condition as regards movement it is at present impossible to say, for the joint has not yet been exercised in any way.

CASE 2.—A girl of nine years was admitted in July last with the following history. She had always been delicate; the school to which she had to walk every day was three miles from her home, she had consequently been much exposed to wet and cold. In February last she complained of pain at the right ankle, which showed a red

and very tender spot; the doctor called it "erysipelas." Two days later she became delirious, and in about a week the right elbow puffed up. In the meanwhile the leg was greatly swollen, and an abscess which had formed near the ankle was opened, as was also one which had formed near the elbow. After this the child, who had been delirious for more than a fortnight, was much relieved. For three months the leg was poulticed, and in June, a month after the arm had got well, an abscess appeared under the chin. Thus the history clearly showed acute periostitis of tibia, subperiosteal abscess and pyæmia—a tolerably common sequence in children. Had the doctor compared the tibiæ at the beginning of the disease, he would have found the affected one enlarged and tender, and would not then have taken the redness of the skin for erysipelas. Then, making an incision through the swollen periosteum, he would have cut short the disease, and would also have greatly diminished the risk of necrosis.

On admission the child was very ill; the leg was swollen from knee to ankle, but the joints were free. Several cloacæ, one of which was just above the inner malleolus, and another below the head of the tibia, led through to bare bone. Mr. Owen cut down through the thickened tissues and removed a sequestrum of the tibial diaphysis four or five inches long, remarking at the time that, considering the unfavourable conditions, local and general, he feared that amputation would soon have to be resorted to. However, the child did splendidly, and in about a month the wound was almost well. But then, as in the other case, the temperature ran up almost to 104°, the knee became large, hot, and tender, and aspiration showed it to be distended with flaky pus. It was concluded that suppuration had found its way from the line of the upper junction-cartilage into the knee joint; and on opening the articulation and turning up the patella, by dividing its ligament, as in the last case, an opening was discovered below the inner semilunar fibro-cartilage, through which a probe could be passed into the sequestral cavity. The case was treated as in the former instance, except that, as the sinus passed on the inner side of the epiphysis, the drainage tube was not run through the head of the tibia itself. The child made an excellent recovery, and, like the boy, is going about in a Thomas's splint, with the sound foot raised on a patten.

Remarks by Mr. OWEN.—These are two of the most important and interesting examples of joint disease which I have ever met with, and it is probably stating the case mildly when I say that many a limb has been amputated for a far less serious condition. The successful issue is to be ascribed to several circumstances, such as the absence of delay and temporising when it was found that the joint was actually involved in suppuration, the free exposure of the interior of the joint, the efficiency of the drainage (in each case a tube was passed through the posterior ligament and through the popliteal space), and the careful scraping and irrigation of the suppurating cavity and track. The dressings were of absorbent mercurial wool.

WEST HERTS INFIRMARY.

CASES OF SURGICAL INTEREST.[1]

(Under the care of Mr. F. C. FISHER.)

CASE 1. *Ankylosis of knee joint.*—C. F——, aged twenty, housemaid, was admitted on June 18th, 1885. The patient had scarlet fever ten years ago, followed by ankylosis of the right knee. Five years ago she fractured the right femur close to the knee joint. It was put up in plaster-of-Paris, and on removal it was found that an abscess had formed about the joint. The patient had been able to walk with a crutch up to three weeks ago, when she fell and bruised the knee, afterwards she was unable to bear any weight on that foot.

On admission, the right knee was flexed and fixed at an angle of 45°; above and to the inner side of the patella was an old scar, the result of an abscess. Measurement: right femur, two inches and three-quarters shorter than the left; right leg one inch and a quarter shorter than the left; the contour of the joint was lost, the depressions on either side of the patella being replaced by bulgings, over which there was tenderness. Extension was tried, but was useless. After consultation it was decided to operate.

On July 17th an exploratory incision was made under ether. The cartilages both of femur and tibia were disorganised, and the patella ankylosed in the inter-condyloid notch. The joint was then excised with Listerian precautions, but, owing to the depth of the ulceration, a good deal of bone had to be removed, leaving a large gap. There was a good deal of subsequent bloody oozing.

The case ran an aseptic course. Highest temperature 100°. No pus. Wound healed by primary union. Tubes entirely removed on July 30th.

Sept. 1st.—No bony union; parts rubbed one on the other and limb put up in plaster-of-Paris. Patient discharged, walking on crutches.

She was re-admitted on Dec. 4th, 1885, and plaster removed. Flail-like union; patient unable to lift the limb off the bed. With the patient's consent further operation was decided on.

Jan. 12th.—With Listerian precautions, the bones were cut down on, all fibrous tissue removed, and the bones refreshed. They were then brought together by two stout pure silver wires, and the ends battered down into the bones; a strip of skin, including the old cicatrix, was removed. The soft parts were then brought together, and the limb put up in a splint made out of Gooch's material, after the pattern described by Watson Cheyne.

The case again ran an aseptic course. Highest temperature 100·6° the day after operation. No pus formed.

Jan. 30th.—Parts quite healed, except at site of tubes.

Feb. 13th.—Firm bony union. Limb removed for the *first* time out of the splint, and encased in plaster-of-Paris.

March 10th.—Plaster removed. Can bear her weight on the foot.

In July, 1887, the patient presented herself wearing a high-heeled boot. She had walked eight miles at a stretch without a stick, and was able to do all housework, being quite able to kneel down on the one knee to scrub a floor. She was greatly pleased with the result.

Remarks by Mr. FISHER.—The total length of shortening was about seven inches, four inches of which existed before operation, due to the fracture and arrest of development of the leg. The silver wires (which must be of quite pure silver) were used with two objects. First to keep the bones approximated, and secondly to prevent subsequent displacement backwards. To attain this second object, I think the following mode of insertion is worth following—viz., to make the holes in the tibial section quite near the posterior surface; those in the femoral section being more anterior in this way, when the wires are drawn together the tibia is lifted out of the popliteal space, counteracting all tendency to subsequent displacement backwards. To those who have not used the splint mentioned I can very strongly recommend it; once put on, it need not be removed, and the comfort both to patient and surgeon during dressings is immense.

CASE 2. *Vesical calculus; supra-pubic lithotomy.*—J. S——, aged three, was admitted on July 21st, 1887. During the last few months, whenever the child has passed urine, he has crossed his legs and complained of pain in the penis. His mother thought that he passed urine more frequently than natural.

On admission the patient was a well-nourished child, who passed urine every hour and a half, sometimes very small in quantity, crossed his legs as described, and had pain on urination. The prepuce was long and narrow. There was no blood or albumen in the urine.

July 29th.—Chloroform was administered, and a stone detected with the sound. After a consultation it was decided to perform supra-pubic lithotomy.

Aug. 4th.—Chloroform was administered; the rectum distended with a small pear-shaped indiarubber bag holding 4 oz.; the bladder emptied and injected with about 6 oz. of boric acid solution, and the penis ligatured. The bladder now formed a rounded eminence, reaching rather more than half way to the umbilicus. An incision was made from the pubes upwards for two inches and a half; having exposed the loose fat immediately above and behind the pubes, by scratching through this, the fibres of the bladder were easily seen, and then the loose tissue covering the bladder was gently pushed upwards by the finger nail, the nail scratching through any slightly resisting cellular tissue. A sharp hook was passed into the bladder, and an opening about half an inch made with a scalpel in the middle line. The contents of the bladder rapidly ran out, the forefinger of the left hand was introduced, and the stone detected and hooked upwards towards the wound; by a

[1] Read before the West Herts Medical Society on Oct. 12th, 1887.

little manipulation with the other hand the stone was gently squeezed out of the bladder wound. No ligatures were required; the abdominal walls were brought together with silk sutures; a drainage tube was put in the bladder. The bladder was not sutured. The wound was dressed with salicylic silk and iodoform.

The bladder was daily washed out with boric acid solution by the wound and per urethram.

8th.—Drainage tube removed.

12th.—All sutures have cut their way out, leaving a healthy granulating sore.

17th.—Passes urine per urethram when standing up, free from all pain.

Sept. 15th.—The wound has now been healed for two or three days, and the boy has been running about the ward quite well. He is free from all pain, and was discharged as cured.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

The so-called Hendon Cow Disease and its relation to Scarlet Fever in Man.

AT the special meeting on the 15th inst. the following discussion took place on the above subject, introduced by a paper by Professor E. Crookshank, which was published in full in our last issue.

Professor BROWN desired to state the position which he occupied with regard to this inquiry. When Mr. Power's report concerning the Hendon cow disease appeared, he criticised his conclusions on the same basis as those of any other documents which came under his notice. He found that that report was based on negation. There was absence of any evidence of contagion by human agency. If the human contagium had presented itself, Mr. Power's postulates would never have been drawn. Was it more probable that there was an undiscovered source of human contagion than that the cow herself had developed something in her system which could give rise to human scarlatina? It had been hinted that there was some friction between the various Governmental departments, but so far from that being the case, he was willing, with the sanction of the lords of the Council, to place the whole of the resources of the Agricultural Department at the disposal of the Medical Department and of the profession generally for the purposes of this investigation. Mr. Power's report had inflicted a shock on the dairy interest, and as a result he had directed the present investigation. After a great delay he was able to get intimation of several outbreaks of the disease. The cause of the delay was partly the fear of giving information after the publication of Mr. Power's report, and partly the fact that the veterinary surgeon rarely heard of the outbreak, the farmer simply coming to him for a pot of ointment to treat the sore teat. That the disease was looked upon among farmers as of no account was shown by the fact that the affected cows sold in the market at a fair price. A few brought to the metropolis with the disease had been slaughtered, but the majority went to mix with other herds in various parts of the country. The pock which developed on the teat was "spoilt" by the handling of the milkers, and developed into a filthy sore. In some six or seven outbreaks during the last two months (for it was very prevalent at the present time), this eruptive disease of the teat had not been coincident with scarlatina; this might be only a singular coincidence. He did not profess to connect this disease with the Hendon cow disease, for he never saw the latter. Recently 604 cowsheds had been inspected in the metropolis, and over 9000 cows examined, but no eruptive disease had been discovered. His experience was that in rural districts dairy farms were often very dirty, whilst dairies in town were, as a rule, patterns of neatness and cleanliness. On the bacteriological aspect of the question he was silent, but he was unprepared to hear that this disease was really cow-pox. It seemed desirable, from his point of view, that it should be put under the Contagious Diseases (Animals) Acts, which would make it an offence to sell milk from a diseased animal.

Dr. BUCHANAN said that Professor Brown seemed to take it for granted that, given two febrile diseases, each associated with a micrococcus presenting certain characters in nutrient material, the two diseases must be the same. Professor Crookshank and Professor Brown had never seen one of the diseases they affected to diagnose, and the unity of the affections had been affirmed on resemblance of some only of the characters, not all. In the Hendon cases results of the post-mortem examination had been recorded, but they had heard nothing of the necropsy of Dr. Crookshank's case. His conclusion was that Professor Crookshank was in possession of some curious cases of cow-pox arising apparently spontaneously, and the result of inoculation into human beings would be awaited with interest. He supposed there might be some varieties of this disease called by Professors Brown and Crookshank *the* disease.

Dr. KLEIN said that Professor Crookshank had compared the disease he had seen with the outbreak at Hendon on the strength of Dr. Cameron's report, but that account was based on information derived from a variety of people in different localities. Dr. Cameron says that he is informed that human inoculation has happened, but this did not occur at Hendon, for there was not a single case there of infection of a milker, and there was no fever, no primary eruption, and no vesiculation. The ulcers and sores observed on the Hendon cows were different from those on the cows from Professor Crookshank's investigation which had been placed at his disposal. The ulcers in the Hendon cows were deeper, smaller, and healed up more rapidly; in eight or ten days the crust was gone. In the Wiltshire cows there were large irregular superficial ulcers; there was no "substance" in them, merely a slight granulating surface underneath the scab. A cow sent from Edinburgh had in its lesions greater similarity with the Hendon than with the Wiltshire cows. The milk from the herd of Edinburgh cows had been supplied in a district in which between forty and fifty people had been attacked with sore-throat and fever. In regard to the organisms, he was surprised that Professor Crookshank said that these microbes, because they appeared to agree in certain particulars, were therefore the same thing. It was too short a time yet to judge of these differences; one would be found to grow a little slower, the colonies were a little smaller, and there were other small differences. As an illustration of this he would quote the micrococci of septicæmia, scarlatina, and erysipelas; all behaved much alike in cultivations, but on inoculation the septicæmic organism at once differentiated itself. There were many streptococci which, similar under the microscope, differed in rate of growth, size of colonies, opacity or translucency, and behaviour in different cultivation media. He could say positively that the organism from the Hendon cow disease was not the same as the organism from Professor Crookshank's cases. From cow No. 1, which had a mammary abscess, he got an organism which he planted in agar-agar, Brand's extract, and peptone mixture, but it refused to grow; whereas, the organism from the Hendon cows grew readily in such a mixture. Then, again, cow No. 1 had no visceral lesions; whereas, in the Hendon cases there was lung, spleen, and kidney disease. Professor Crookshank's cases looked much like real cow-pox, and were most probably so; his pictures corresponded to Ceely's figures, and it would be interesting now to test and see if the calf would not take animal vaccine. Dr. Klein quoted an instance in which two horses were affected with a disease which looked like variola equina; the eruption healed and left no pitting. One of the grooms developed a vesicle on his thumb. Inoculation of lymph from this vesicle did not produce cow-pox in calves, ponies, or donkeys. It was therefore a disease which only resembled variola in some particulars. So in the present instance, though vesiculation and ulceration were present, inoculation alone would prove the affection to be true cow-pox.

Professor CROOKSHANK, in reply, said he had not personally observed the Hendon cow disease, and Dr. Klein who had made the post-mortem on the first of his cases had already told the result. His own account had followed as closely as possible Dr. Klein's narrative of the Hendon disease. He had said that the microscopical appearances and characters on cultivation were identical with those of other streptococci. To his mind the evidence put forward by Mr. Power was a clever hypothesis, and Dr. Klein, by introducing the organism, had made that hypothesis a working one. He had yet to study the effect of inoculation in animals. He had succeeded in growing the organism in agar-agar and in broth. He regretted that no drawing had been published of the

original Hendon disease. On the farm from which his cases were drawn were eleven milkers: four old men had had the disease before, and did not contract it again; the other seven were lads, and had all contracted it. He would be glad to give all who were interested in the subject every opportunity of working at it. If Dr. Cameron's report did not refer to the Hendon cow disease, he thought some official statement to that effect should be made by the authorities of the Local Government Board.

Sir JAMES PAGET felt sure that in the future the disease could not well be overlooked. There was a great necessity that diseases in the cow should be studied by careful pathologists, and Mr. Ceely's papers and drawings would yield most valuable material for the investigation, and were deserving of the closest study.

Rare Forms of Fracture of the Lower End of the Femur.—Vertical Fracture of Head of Tibia.—Rare Fracture of Acetabulum, with Dislocation of Head of Femur into the Pelvis.—Partial Perforations of Skull-cap in cases of Cerebral Tumour.—Pathology of Sarcoma of Sole of Foot.—Rickets in Lion's Skull.

An ordinary meeting of this Society was held on Tuesday last, Sir James Paget, Bart., F.R.S, President, in the chair.

Mr. BULL showed a specimen of Fracture of the Lower End of the Femur, extending into the knee joint. It was removed from a cabman aged fifty-six, whose thigh was amputated owing to the suppuration in the knee joint which ensued on the hæmorrhage into the joint due to the injury. A large slice of bone had been broken off the lower end of the femur from the anterior surface, the condyles being split laterally and longitudinally. The fracture had become united by callus. A somewhat similar fracture was known to occur in the patella, but its occurrence was, perhaps, unique in the femur.

Mr. D'ARCY POWER showed a specimen from the museum of St. Bartholomew's Hospital of Simple Comminuted Fracture of the Head of the Tibia, with a longitudinal fracture extending upwards through the internal tuberosity into the knee joint. The patient was a woman aged seventy-six, who fell down a flight of twenty steps and was found with her leg doubled under her. The fibula was shattered just below the neck. The main interest of the specimen consisted in its illustrating the mode of occurrence of longitudinal fracture in these cases: it was clear that the fracture resulted from the driving of the lower into the upper fragment.

Mr. TIMOTHY HOLMES showed a specimen of Fracture of the Acetabulum, with Dislocation of the Head of the Femur into the Pelvic Cavity. The man, aged about sixty, had fallen from a height of fifteen feet on to his side in the trochanteric region; the thigh could be flexed and crepitus felt; there was one inch of shortening; the great trochanter was deeply sunk, and reached just above Nélaton's line. The patient died in a few hours. The head of the femur had passed through the bottom of the acetabulum, and had broken the os innominatum into many pieces. A somewhat similar specimen was shown before the Society by Mr. Moore. Reference was made to cases quoted by Sir Astley Cooper, and also to another instance, probably of a similar nature, but not examined anatomically. In Mr. Cutler's case the head of the femur was not driven into the pelvis. An accurate diagnosis in these cases was perhaps not impossible, though it had not been made in any of the known recorded cases. The reduction of the fracture was possible.—Mr. FREDERICK TREVES thought the case exhibited the mechanism by which the fractures were produced, and this was by the force being sent through the great trochanter, the head being driven as a wedge through the quadrilateral thin portion of the acetabulum and so splitting up the two arches of the pelvis. In reply to Sir James Paget, he said he explained the difference of result in different cases by supposing that the head of the femur was in contact with different parts of the acetabulum at the moment of the receipt of injury. Sometimes the acetabulum would be merely starred, and at others the head of the femur would be driven through, according, perhaps, to the degree of violence. If the head rested against the thick part of the acetabulum, then the neck of the femur would be broken.—Mr. TIMOTHY HOLMES partially agreed with Mr. Treves, but considered that the mechanism of fractures was frequently inexplicable.—Mr. TREVES suggested that a series of artificial fractures on the dead body might point out the *rationale* of these cases.—Sir JAMES PAGET had attempted years ago to fracture bones so as to imitate ordinary solutions of continuity, but without success. He asked that some of the younger members of the Society would undertake a series of experiments of the kind suggested.

Dr. ORMEROD showed a Skull with Partial Perforations from a case of cerebral tumours. About thirty holes were scattered over the frontal and parietal regions on both sides, varying in size from a quarter of an inch in diameter downwards, extending through the inner table, and in some instances almost completely perforating the skull. Actual perforation was observed during life over the right eye; this perforation was enlarged in the course of a surgical operation for removal of the tumour, and therefore not now visible. The dura mater exhibited clean-cut perforations corresponding to those in the skull. There was roughening of the internal table between the perforations, and in some places general thinning of the skull. The holes were seen at the necropsy to be due to small soft tumours sprouting from the surface of the brain. The large surgical hole was blocked by a slough when the tumour had been removed, and behind this the frontal lobe was entirely softened. The choroid plexus of the ventricles was infiltrated with pus, which, tracking into the left temporo-sphenoidal lobe, formed a large abscess there. The patient was admitted under Dr. Andrew into St. Bartholomew's Hospital with general symptoms of cerebral tumour. Some left-sided paralysis appeared soon after. He became unconscious, and remained in that state for over a year, being kept alive by nasal feeding. Shortly before death a perforation occurred over the right eye; the hole was enlarged, and the tumour partly removed.

Mr. F. TREVES showed a Tumour from the sole of the foot as a contribution to the early history of malignant growths. The specimen came from a man aged fifty-six; in the sole of the foot the swelling had been in existence for thirty years, and had steadily increased. It had a circumference of about ten inches, and measured about three inches and a half across; the skin was sound everywhere, except at one spot near the little toe, which was softened and the seat of more active growth. Injury, irritation, and exposure to cold had all operated upon the tumour for many years, and it had been walked upon for thirty years; so that age would seem to have most influence in the development of the tumour. The malignant new growth was of the size of a horse-chestnut. The primary tumour of fibrous tissue could be seen to be infiltrated with a new growth arranged without order or method. The notion that the tumour took on a degeneration into a malignant character was not supported, for it seemed that the malignancy was due to an actual addition rather than a conversion or true metamorphosis.—Dr. COUPLAND referred to the uterine fibromata in which malignant growth was not developed from the muscular fibre.—Mr. BLAND SUTTON spoke of the tumours of tumours, as when certain dermoid tumours became the seat of malignant growths; the ovary might become the seat of epithelioma, and perhaps of other neoplasms.—Mr. GODLEE did not think that malignancy was always an addition, but an actual change might occur in the elements of a tumour, as when recurrent fibroids became more malignant.—Sir JAMES PAGET, whilst agreeing with the main argument, pointed out that a new growth takes on properties from the tissue in which it grows.—Mr. TREVES detailed the histology of certain warts, in which there appeared to be a direct conversion of the individual cells into epithelioma.

Mr. BLAND SUTTON exhibited specimens illustrating a peculiar effect of Rickets upon the Skulls of Lions. Last session he showed some similar specimens, in which the bones of the skull pre-formed in membrane were those most affected in rickets; this applied to all mammals. The carnivora possess an ossified tentorium which normally is of the thickness of writing paper. When the skull is thickened by rickets this bony tentorium is also affected, the enlargement giving rise to pressure symptoms and some curious effects on the brain. The specimens previously exhibited showed the changes which occur in the brains of cubs; the enlarged tentorium presses upon the vermiform process of the cerebellum, and this compression occludes the fourth ventricle and intercepts the inter-ventricular communications leading to hydrocephalus, with well-marked symptoms, general paralysis, and death. When the thickening of the tentorium occurs at a later date the effects upon the brain

are somewhat different. The large tentorium presses upon the vermiform process of the cerebellum and obliterates the fourth ventricle, but instead of causing extreme dilatation of the third lateral ventricles in the cub, we find these cavities are but little larger than usual. The effects upon the floor of the fourth ventricle are somewhat different, for an examination of the cerebellum and medulla in longitudinal shows that the abnormal pressure of the vermiform process causes erosion of the floor of the fourth ventricle, and in one of the specimens this portion of the cerebellum is accommodated in a distinct shallow groove. The differences may be accounted for by the unyielding character of the cranium at the age of two years in lions, as compared with the accommodating nature of the sutures and fontanelles in the cub. The lions from which the specimens were obtained were paraplegic for many weeks before death, and in one the tail became gangrenous and sloughed. On the hind limbs were three large ulcers comparable to bed-sores. In reply to Sir James Paget, he said that rickets was not found in animals in the wild state. John Hunter's specimens were probably obtained from menageries. An extinct form of whale (Pachycanthus), found in a large tract of country near Vienna, was shown by Paul Gervais to have signs of rickets, and with a remarkable narrowing of the spinal canal to a mere chink.

The following card specimens were shown:—

Dr. PERCY SMITH: Syphilitic Arteritis from General Paralysis of the Insane.

Dr. PENROSE: 1. Multiple Renal Calculus in a child aged nine years and a half. 2. Pericellular Cirrhosis of Liver in a child aged three months, suffering from congenital syphilis.

Dr. MONTAGUE MURRAY: Infective Endocarditis affecting both sides of the Heart, with Patent Ductus Arteriosus, in a woman aged thirty-six.

Dr. D. F. DREWITT: Gangrene of Leg occurring in the fourth week of typhoid fever.

Mr. LEOPOLD HUDSON: 1. Atrophic Cirrhosis of Liver with large Prominences, due to fatty infiltration. 2. Hæmorrhage into a large Cyst in a Cirrhotic Kidney.

Mr. STEPEN PAGET: Fibro-sarcoma beneath the Pectoralis Major.

MEDICAL SOCIETY OF LONDON.

Acute Arthritis.—Gastric Ulcer.—Psoas Abscess.—Mitral Stenosis.

THE meeting on Dec. 19th was a clinical evening. The chair was taken by the President, Dr. J. Hughlings Jackson, F.R.S., at 8.30 P.M.

Mr. EDMUND OWEN gave a clinical demonstration on two cases from the Great Ormond-street Children's Hospital. These cases are described in full in our present number under the heading "Mirror of Hospital Practice."—Mr. ADAMS said that trephining the head of the tibia often prevented the abscess spreading to the joint. He looked upon the cases rather as subacute; the acute cases being either pyæmic or traumatic, usually necessitating amputation, if not, leading to ankylosis.—Mr. BOWREMAN JESSETT referred to a case of acute periostitis of the tibiæ which involved both knee joints, and in which amputation was followed by a successful result.—Mr. PAGE advocated trephining the head of the bone where symptoms of abscess existed, in order to obviate arthritic complication.—Mr. H. ALLINGHAM preferred to open the joint in such cases by a vertical incision, splitting the patella.—Mr. PYE thought osseous ankylosis would be preferable to imperfect movement in a damaged joint.

Dr. ORD demonstrated the case of a coachman, aged sixty, in whom there was a strong family history of Gastric Ulcer, and who himself presented many symptoms of that affection. He was emaciated and cachectic, suffered from pain after food, relieved by vomiting, the vomit containing blood. The symptoms had entirely disappeared under treatment, consisting of a mixture containing subnitrate of bismuth, carbonate of potash, and tincture of belladonna, with infusion of gentian, together with a soft bland diet. The diagnosis rested principally on the absence of palpable tumour, the effect of treatment, and the history of many years' gastric suffering. The ulcer differed from those found in young women, in being larger, less regular in outline, and shallower, and in possessing a rounded, rather raised, never hard edge. In cases of undoubted carcinoma he had found that a mixture of bismuth and iodide of potassium greatly mitigated the pain.—Dr. SIDNEY PHILLIPS said that cases of unduly pulsating aorta had been connected with hæmatemesis and melæna without gastric ulceration.—Mr. JESSETT had found iodide of potassium and alkalies useful in gastric catarrh.—Dr. KESER inquired if tropœolin, described by Van den Velden, had been used by Dr. Ord as a test to distinguish between the vomit of ulcer and cancer.

Mr. BERNARD PITTS exhibited two cases of Psoas Abscess treated by lumbar incision. The first was a boy aged twelve, who had pain in his lumbar spine for several months, followed by formation of abscess, which had been evacuated by a free lumbar incision. A finger introduced into the wound detected extensive carious excavation of the front of the bodies of several lumbar vertebræ. The boy was kept at rest in bed for eight months, when well-marked angular curvature was manifest. For the last six months a poroplastic jacket had been worn, and the discharge, which was now exceedingly small, was received into an iodoform dressing changed once weekly. The second case was a man aged twenty-nine, who had a fluctuating swelling in the left groins of ten weeks' duration, apparently unassociated with injury or spinal disease. The groin swelling was opened by a small incision and a large counter-opening made in the loin. Two months afterwards he left the hospital with the wound soundly healed. Both were treated antiseptically. Mr. Pitts spoke of the almost uniform success now obtained in dealing with psoas abscess, more particularly in children. In the boy the lumbar incision enabled the extent of the mischief to be accurately gauged, and prolonged rest in bed commensurate with its gravity to be decided on. It would have been difficult to have included safely and comfortably an inguinal incision in an antiseptic dressing. The abscess in the second case, he thought, was more probably due to some carious spot which the finger failed to reach than to primary suppuration in the psoas, consequent possibly on strain. He stated that he would never open a psoas abscess unless he could obtain a lumbar drain; he regarded syringing unnecessary unless the pus were offensive or curdy.—Mr. OWEN considered absolute rest in bed better treatment than supports for angular curvature.—Mr. WALSHAM had seen cases cured by two or three aspirations without incision.—Dr. ORD and Dr. S. WEST spoke of the value of aspiration in cases of empyema.

Dr. SAINSBURY showed a patient, a girl of nineteen, with cardiac disease, in whom there was at the apex a rough diastolic murmur—post-systolic—accompanied by thrill. There was likewise a blowing apex systolic bruit, and the second sound at the base was reduplicated.

CAMBRIDGE MEDICAL SOCIETY.

A MEETING of this Society was held on Nov. 4th, Mr. E. Carver, F.R.C.S., President, in the chair.

Dr. RANSOM read the notes of six cases of Diphtheria, all of considerable severity. Albumen was present in all cases, the amount varying more or less directly as the severity of the case. All were followed by paralytic symptoms. All recovered except one, a girl of fourteen, who died quite suddenly on the eighteenth day apparently from syncope, due perhaps to paralysis of the heart muscle or formation of clot; the throat had been well for several days, and the girl seemed to be rapidly recovering, when one evening she had an attack of vomiting, followed by some slight epigastric pain and dyspnœa, death occurring the next morning quite suddenly. One case was complicated with pertussis and the extension of the diphtheria into the larynx; this case recovered. Possibly the pertussis was of some use in preventing tracheal obstruction. All the cases were treated with liq. ferri perchlor. fort. in hourly doses, and hourly painting of the throat with a weak, watery, solution of glycerine of tannin. Attention was called to Löffler's researches on the bacillus of diphtheria as reported by Fraenkel, in defence of the theory of the local origin of the disease and the resemblance of the diphtheritic membrane to the primary syphilitic sore, and the treatment employed defended on this ground.

Professor HUMPHRY showed a specimen of Congenital Sacral Tumour removed from a girl, aged twelve, under his care in Addenbrooke's Hospital. It was a mass the size of the girl's head, consisting mainly of fatty tissue, with a circle of bone, thought rudely to represent a pelvis, and a long

jointed bony part, thought rudely to represent a limb. The bony growth extended into the pelvis between the ilium and ischium, but was not connected with either. Professor Humphry did not remove the deeper portion, being of opinion that, as the mass was congenital and not increasing with the girl's growth, that which remained would not create any inconvenience.

MR. FRANCIS read a paper on Œsophageal Diverticula, in which he classified them into the following groups: (*a*) Congenital: Reference was made to the chief theories as to their occurrence—as analogous to œsophageal diverticula occurring in some of the Sauropsida and in ruminant mammals (forming the first two compartments of the "stomach"); or as fœtal varieties, analogous to the œsophageal diverticulum from which the larynx, trachea, and lungs were formed; or as failure in closing of bronchial cleft at its pharyngeal end; and he remarked on the absence of evidence to show that these diverticula were, at any rate usually, congenital. (*b*) Diverticula associated with stagnation ectasia, depending on stricture of the tube below, and analogous to certain diverticula of the intestine, bladder, and rectum. (*c*) Pressure diverticula, usually occurring near the junction of the œsophagus and pharynx. (*d*) Traction diverticula, usually occurring near the tracheal bifurcation; analogous to diverticula occurring rarely in the bronchus or intestine. He referred to the different methods of production of these diverticula, by the contraction of inflammatory deposits outside the œsophagus, or by the action of the musculus pleuro-broncho œsophageus of Hyrtl and Cunningham, or by the absence of support to the œsophagus below the bifurcation of the trachea, as advocated by Struthers. A specimen was shown, removed from a patient in Addenbrooke's Hospital, under the care of Professor Latham, after death from phthisis, in which a large abscess cavity at the bifurcation of the trachea communicated with the œsophagus and simulated a true traction diverticulum.

MIDLAND MEDICAL SOCIETY.

A MEETING of this Society was held on Nov. 23rd, the President, Mr. Ross Jordan, in the chair.

Foreign Body in Bronchus.—Dr. HAWKES read notes of a case of a child, aged one year and eleven months, who was admitted into the Children's Hospital on Oct. 22nd with the physical signs of obstruction of the left bronchus, and collapse of that lung. On Oct. 16th, while eating a portion of rabbit, he was observed to be choking. The mother dislodged a piece of bone from the back of the mouth and the symptoms of asphyxia ceased, leaving, however, a short cough. This continued for a few days, after which time he was taken to the hospital and admitted. Tracheotomy was performed and every effort made to dislodge the obstructing body, but without success, and the child died on Oct. 26th. At the necropsy one of the caudal vertebræ of a rabbit was found in the bronchus leading into the upper part of the left lung. The left lung was much collapsed, and in a condition of croupous pneumonia.

Tumour of Superior Maxilla.—Mr. AUGUSTUS CLAY showed a tumour, the size of a hen's egg, which he had removed by enucleation from the antrum. There was a history of incessant toothache on that side for four years. Twelve months before the operation a swelling the size of a marble appeared at the upper part of the gum. In six months this had grown rather rapidly, and bulged out the cheek in the usual characteristic manner. The other cavities were not encroached upon. An exploratory puncture was made, and a piece removed for microscopic examination; it was found to be a simple fibroma. A week later the growth was turned out of the antrum, after a small skin incision and an opening through the thin bony wall had been made. The patient was discharged on the nineteenth day after the operation, and up to the present time (twelve months) there has been no recurrence.

Resection of portion of Thyroid.—Mr. MARSH showed a boy, aged fifteen, on whom he had performed resection of part of the thyroid gland. On admission to the Queen's Hospital he was found to have a large bronchocele (simple hypertrophy) of only three months' growth. Each lobe was equally enlarged, and a piece the size of a small orange was situated over the trachea. The pressure symptoms being very marked, Mr. Marsh decided to resect the portion of the gland in front of the trachea. A median incision was made, and with some little difficulty the trachea was cleared, a piece of thyroid the size of an orange being removed. The hæmorrhage was not excessive. The relief afforded was immediate, and the patient rapidly improved in health. The remaining part of the gland became much softer and visibly smaller, evidently atrophying. He was discharged with the wound healed on the nineteenth day after the operation.

Hereditary Optic Atrophy.—Dr. SUCKLING showed a man aged sixty-three suffering from double optic atrophy, entailing complete blindness. He gradually lost his sight when he was fifty, and he states that blindness runs in his mother's family. His mother became blind at the age of fifty; his sister was blind; a female cousin on his mother's side is quite blind. The pupils are small and respond to light. There is no history of syphilis or nervous disease, or any signs of locomotor ataxia.

Fracture of Spine.—Dr. SUCKLING also showed a man aged seventy-six who three months ago had fallen down two stone steps on to his back. He went about for a week without pain, and then had severe shooting pain round the left side. On examination the spine of the tenth and eleventh dorsal vertebræ were found to be prominent and tender on percussion, there being also marked angular curvature. With five weeks' rest in bed all pain and tenderness disappeared, the prominence remaining.

Papilloma of Larynx.—Mr. JORDAN LLOYD showed a papillomatous tumour which he had removed intralaryngeally from a female aged thirty-five. The woman had suffered from hoarseness and paroxysmal dyspnœa for more than seven years, and had been treated for "throat consumption" by several practitioners. The growth was pedunculated and flatly globular in shape, measuring five-eighths of an inch transversely and half an inch in depth. It grew from the lower edge of the left vocal cord. Attempts to seize it with forceps failed, and it was then rubbed off its attachment by means of a piece of dry sponge fastened to the end of a laryngeal probe. Relief to symptoms was immediate. The operation was performed last May, and there is no sign of recurrence.

Brain lacerated by "contre-coup."—Mr. LLOYD also showed a brain from a healthy young man who was supposed to have fallen downstairs on to the back of his head. The injury to the scalp was over the left lambdoidal suture. No symptoms of any kind were present for sixty hours, and then he developed typical Jacksonian epilepsy in the left face, tongue, and jaw muscles, with a progressive paralysis of the left arm. He was trephined over the right fissure of Rolando, on the opposite side of the head to the seat of injury, and a large blood-clot removed. The symptoms were relieved for a few hours; they then returned, and he died comatose about sixty hours after the operation. The necropsy revealed a separation of the right lambdoidal suture with a fracture extending from it obliquely across the right parietal bone, squamous portion of temporal, into the middle fossa of the skull, and terminating between the right lesser wing of the sphenoid and orbital plate of the frontal bone. There was no injury to the brain at the seat of external injury, but part of the right frontal and temporo-sphenoidal lobes were "pulped." There was slight crushing of the front of the right parietal lobe. There were several localised extravasations into grey matter of the convolutions about the fissure of Rolando.

Monstrosity.—Mr. H. S. COOK showed a case of fœtal monstrosity: male twins joined together from the ensiform cartilage to the umbilicus. The mother was delivered naturally, the presentation of the first being a vertex and the second a footling. One lived two days and a half, and the other three. They were both fed with milk, both micturated, but only one had a motion. The living child, after the death of the other, was so feeble that any operation of separation was out of the question.

Dr. SAVAGE read a paper on Pelvic Cellulitis.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

A MEETING of this Society was held on Nov. 10th, Dr. G. H. Hume in the chair.

Adenoid Vegetations in Pharynx.—A girl was exhibited by Dr. LIMONT who had improved under treatment.

Blocking of Central Artery had occurred in a patient exhibited by Mr. WILLIAMSON. No cardiac or kidney disease existed. There was a history of injury to the head,

which was thought to have displaced a patch from some diseased cerebral vessel.

A specimen of *Intussuscepted Bowel* was exhibited by Dr. JAMES DRUMMOND. The symptoms resembled those of irritant poisoning.

Genu Valgum.—A man thus suffering had been successfully operated upon by Mr. MORGAN.

Dupuytren's Contraction.—A man, aged forty, in whom Mr. MORGAN had to divide the flexor tendons, had now good use of hands. The disease began fifteen months ago.

Extra-uterine Fœtus removed successfully by Gastrotomy.—A specimen was exhibited by Mr. MORGAN which was said to have been of twelve months' formation. The cyst had to be stitched to the abdominal wound, and prolonged hectic fever followed; but the patient ultimately made a good recovery. — Mr. Rutherford Morison, Drs. Murphy and Hume, and Mr. Page took part in the discussion, each alluding to cases that had occurred in his own practice.

Abscess of Brain.—Mr. BLACK exhibited a specimen removed from a boy whom he had trephined. The convulsions and left-sided paralysis present before the operations had not been relieved by it.

Liver in Phosphorus Poisoning, removed from a woman who died thirty-eight days after taking the poison, was exhibited by Dr. DRUMMOND. It showed cirrhotic changes. Leucine and tyrosine had never been present in the urine.

Cancer of Stomach.—Dr. DRUMMOND exhibited two specimens. In one the disease was at the pyloric, in the other at the cardiac, end of the stomach.

Sarcomatous Growth from Mediastinum.—Dr. OLIVER exhibited a specimen of a round-celled sarcoma removed from the body of a young man aged twenty-six, who had good health until three months ago, then dyspnœa and hæmoptysis. The growth involved the pericardium and extended to the thyroid.

Electrical Treatment of Uterine Fibroids.—Dr. OLIVER also exhibited Apostoli's apparatus, and commented upon its application in the case of a lady at present under his care suffering from a bleeding uterine myoma.

Idiopathic Tetanus.—Mr. PAGE read notes of a case at present under his care. He advocated the purely nervous nature of the disease, regarding it as dependent upon an exaltation of the polarity of some portion of the grey matter of the spinal cord. Alluding to Shakespear's experiments, he considered the medulla oblongata as the seat of the poison in traumatic tetanus, and he hoped that the experiments which Shakespear and others had carried out in regard to this affection would be repeated in the proposed comparative anatomy and pathological laboratory about to be established in the new College of Medicine in Newcastle.—Drs. Limont, Philipson, and Heath, and Mr. Clement Stephenson, joined in the discussion.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

THE usual monthly meeting was held in the Faculty Hall on Wednesday evening, Nov. 23rd, Dr. Abraham Wallace, President, in the chair. J. McGregor Robertson, M.D., C.M., and H. St. Clair Gray, M.B., C.M., were duly elected members of the Society. There was a large gathering of the general profession in response to a special invitation to hear Mr. Skene Keith, of Edinburgh, who read a paper on "The Treatment of Fibroid Tumours of the Uterus by Electricity," and Dr. J. McIntyre, who gave a "Demonstration of Apparatus used for Electro-therapeutics." Mr. Keith gave the details of six fibroid cases treated successfully as to reduction of size of tumour, mitigation of pain, and cessation of metrorrhagia, and the results in fifty-eight cases (1350 applications), whereof fifty-two had been greatly benefited. Dr. McIntyre recounted the various forms of electric force and the different methods whereby these are rendered applicable to practical therapeutics, together with the methods at present used for measuring the current as to intensity, quantity, and rate, and the terms of measurement. He also gave an interesting demonstration of batteries and modes. Both papers were cordially received and discussed.

Reviews and Notices of Books.

The Life and Letters of Charles Darwin, including an Autobiographical Chapter. Edited by his SON, FRANCIS DARWIN. Three Volumes. London: John Murray. 1887.

THE appearance of these volumes will be welcomed by all those who desire to know something of the public and private life of a man whose slowly matured convictions, enunciated in measured and weighty terms, have not only effected a revolution in natural history, but have been applied with almost identical results to many other departments of human knowledge. The three volumes are respectively devoted to his early life up to 1854; to an account of the history, publication, and spread of his work on the "Origin of Species"; and to the various works which appeared in quick succession from 1863 to 1883.

The family from which Charles Darwin arose were formerly substantial yeomen residing in the northern part of Lincolnshire, close to Yorkshire. His father was a doctor, who, from the various anecdotes that are told of him, must have been a man of great acuteness of intellect; and he himself was born at Shrewsbury on February 12th, 1809. At a late period of his life a German editor appealed to him for an autobiographical notice, and thinking the subject was one that might interest his children, he drew up a short account of his life and character, which, though short, constitutes one of the most interesting parts of the work. From this it appears he had the misfortune to lose his mother at the early age of seven, just after he had been sent to school at Shrewsbury. He states that he was a lad of inquiring mind, fond of collecting all sorts of objects, such as shells, seals, coins, and minerals. Amongst his earlier recollections was his disposition to *invent*, if that term may be applied to lying; and he gives as an instance that he once gathered much valuable fruit from his father's trees, and, after concealing it in his shrubbery, ran in, in breathless haste, to spread the news that he had discovered a hoard of stolen fruit, which, after all, was not far beside the mark. It is interesting to note that although a pupil in one of the best schools in the country, and at a time when Dr. Butler was head master, he in after life considered that the school as a means of education to him was a perfect blank, and that the only qualities he possessed, which at this time promised well for the future, were that he had strong and diversified tastes, much zeal for whatever interested him, and a keen pleasure in understanding any complex subject or thing. In contrast with the modern side or department which has been established in some of the great schools in England, he observes that, on its becoming known that he worked with his brother in spare hours at chemistry, he was once publicly rebuked by Dr. Butler for wasting his time on such unprofitable subjects, and stigmatised as a *poco curante*, a term that, not being understood, troubled him greatly. On leaving school, he was sent, in 1825, to Edinburgh University, with a view of entering the medical profession, but the dreariness of the lectures, his unconquerable aversion to dissection, and his mental agony in witnessing operations, then of course performed without chloroform, led him to spend most of his time in the pursuit of natural history. He formed friendships with Dr. Coldstream, with Grant (afterwards Professor of Comparative Anatomy in University College, London), and with Macgillivray. In 1828, all thought of medicine being given up, he proceeded to Cambridge with the intention of entering the Church; and as he says himself, considering how fiercely he has been attacked by the orthodox, it seems ludicrous that he once intended to be a clergyman. This intention was never given up, but died a natural death when, on leaving Cambridge, he joined the *Beagle* as naturalist. In later life, he adds, the secretaries

of a German psychological society asked him earnestly by letter for a photograph of himself, and some time afterwards he received the Proceedings of one of the meetings, in which it appeared that, after public discussion of the shape of his head, one of the speakers had said that he had the bump of reverence developed enough for ten priests. He passed well in the poll, and obtained his first taste for scientific work from friendly personal intercourse with Henslow, the botanist, and Sedgwick, the geologist. He was appointed through Henslow's instrumentality naturalist to the *Beagle* in 1831, and was away from England for nearly five years, his impressions being recorded in "A Naturalist's Voyage round the World." In this work the dawn of his future labours is sufficiently apparent. A few years after his return from this voyage, in the course of which his health became much impaired, he settled at Down, where with his wife and family he remained till death closed the scene on April 19th, 1882. He was buried in Westminster Abbey, accompanied to the grave by many of his oldest friends, and by a large number of interested and mourning spectators.

A point that is particularly worthy of notice in Darwin's life is the relatively short period of the day he devoted to actual work. His son states that after breakfasting alone at about 7.45 he went to work at once, considering the hour and a half between 8 and 9.30 one of his best working times. An interruption for an hour followed, and then he set to work again from 10.30 to 12, by which time he considered his day's work over. The rest of the day was spent in brief exercise, and in having novels, history, and travels read aloud to him. Indeed, novels seem to have had a strong attraction for him, probably affording relaxation of the mind from the tension of severe thought.

Letters, as a rule, are dull reading, if only from their interrupted disconnected character; but we can assure our readers that Darwin's letters are exceptionally interesting. They show the whole process of development of his great theory; how earnestly he brooded over the subject; in how many aspects he viewed it; how desirous he was to obtain information on all points that might serve to illustrate or correct it; how fearful he was that he should weary his most intimate friends, Lyell, Hooker, and Henslow, by constantly reverting to it. They show his naturally lively disposition and his thorough perception of fun—as, for example, this postscript in a letter to Lyell "Our ancestor was an animal which breathed water, had a swim bladder, a great swimming tail, an imperfect skull, and undoubtedly was a hermaphrodite. Here is a pleasant genealogy for mankind!" They show at the same time the truth of Bacon's aphorism that reading makes a full man, writing an exact man, and speaking a ready man. Darwin both read and wrote much, but he on several occasions expresses his gratitude to others who replied to criticisms, declaring that they had used arguments he had forgotten, though he had forged them, and that, as in the case of Asa Gray, they knew his works better than he did himself. He did well to keep away from meetings of societies, where his temper and health would alike have been impaired; his adversaries might here have obtained a temporary victory, and he would have deprived himself of the immense advantage of submitting all adverse arguments to the calm and cold consideration of the study, where he could summon up a thousand facts to controvert the views of his opponents or to support his own.

The great work on the "Origin of Species," on which his fame mainly rests, appeared on Nov. 24th, 1859. The number of copies printed was 1250, and all were sold on the first day, when an edition of 3000 was immediately prepared. Copies were sent to Hooker, Lyell, Huxley, Wallace, Agassiz, and many other leading men, and his letters to them and their replies to him are full of interest. More than one of his friends, whilst passing high eulogiums on the manner in which he had treated his subject, warned him of the storm of criticism that was in store for him. The storm came. The book was greeted in many quarters with an outburst of wrath, scorn, and indignation, which he evidently felt, but bore up manfully against. At this time it was almost impossible for anyone who was thought likely, either by his independence of thought or by his eccentricity, to accept the new theory, to meet his friends at dinner or other social gathering without being asked whether he believed in this new-fangled nonsense, or whether he had made up his mind from what animal he was descended. To those who can recall this period, the change in the public mind which has resulted from the toning effects of familiarity and the influence of authority is very remarkable as well as encouraging.

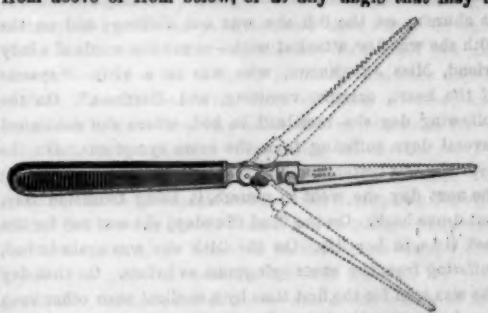
The life of Darwin shows how much may be accomplished by a man of fair but not extraordinary talents, when these are supplemented by great industry and earnest study in some one direction, and the lesson thus taught is within the power of most if not all men to practise. We recommend Mr. Darwin's life of his father to all our readers, and cordially compliment him on the way in which he has fulfilled the task that naturally devolved upon him.

Burroughs' Medical Diary.—We have received a copy of Burroughs' Medical Diary for the coming year, and are able to speak highly of its merits. Convenient in size, well bound, and containing information of special interest to members of the medical profession, it deserves and will doubtless have a large sale. Its appearance is late, and owing to this circumstance its proprietors have decided to make a large reduction from the price originally proposed.

New Inventions.

REVERSIBLE NASAL SAW.

THIS instrument has been designed for the removal of cartilaginous and bony obstructions in the nasal passages. The advantages it possesses are: fineness of the blade, and, by means of a screw at the junction of the blade and the handle, a reversibility which enables the operator to work from above or from below, or at any angle that may be



necessary. The serrated edge extends along from one-half to two-thirds of the blade, so as to avoid injuring the skin at the entrance to the nares. I have hitherto had two sizes made—one for fine, the other for coarser work. The maker is Mr. Young, Forrest-road, Edinburgh.

Edinburgh. ——— G. HUNTER MACKENZIE.

ST. DALMAS HOSPITAL STRAPPING.

MR. DE ST. DALMAS has submitted to us a sample of his hospital strapping. It is spread on good stout "holland," is very adhesive, and appears to fulfil all the necessary conditions. The plaster is stated to be entirely free from resin, and to be unirritating.

THE LANCET.

LONDON: SATURDAY, DECEMBER 24, 1887.

THE trial of Surgeon-Major CROSS for the wilful murder of his wife by poison commenced on the 14th inst., and, after lasting the whole of three days and the greater part of a fourth, resulted in a verdict of guilty, prisoner being sentenced to be hanged on the 10th prox. This was almost a foregone conclusion at the preliminary stages of the case before the coroner and magistrates in August. The main facts, as disclosed in the evidence given at the trial, were briefly as follows. The accused, PHILIP HENRY EUSTACE CROSS, was a retired army surgeon-major, having obtained the L.R.C.S.I. in 1848, and being now about sixty-three years of age. He was married to the deceased lady (whose maiden name was LAURA MARY MARRIOTT) in 1869, she being at the time of her decease forty-six years of age. Soon after their marriage he left the army, and they went to live at Shandy Hall, near Cork, being in comfortable circumstances, having a family of five children, and they would appear to have lived happily together until the close of 1886. At that time the prisoner began to treat his wife with indifference; and having formed an adulterous intimacy with a Miss SKINNER, a lady who had been governess in his family for three months, he began to treat his wife with cruelty, threatening and cursing her. He left home last March, and was proved to have stayed at a hotel in Dublin with Miss SKINNER, they living as man and wife under the assumed name of OSBORNE. Up till the end of April last the deceased, though somewhat delicate, had fairly good health, and was seen by a gentleman (who had known her for twelve years) walking about a field, looking well, and expressing herself as feeling well. On May 8th she was at church; on the 9th she was out visiting; and on the 10th she was first attacked with—to use the words of a lady friend, Miss JEFFERSON, who was on a visit—"spasms of the heart, cramps, vomiting, and diarrhœa." On the following day she remained in bed, where she continued several days, suffering from the same symptoms. On the 18th she was better, and had a walk with Miss JEFFERSON; the next day she went to church, it being Ascension Day, but drove back. On the 22nd (Sunday) she was out for the last time in her life. On the 24th she was again in bed, suffering from the same symptoms as before. On that day she was seen for the first time by a medical man other than her husband, this being Dr. THOMAS GODFREY, a near neighbour, and an uncle by marriage of the prisoner. He saw her in bed, CROSS being present, his visit lasting about fifteen minutes. He had been told by CROSS that his wife was suffering from diarrhœa, and the impression conveyed to his (Dr. GODFREY'S) mind was that she was suffering from a bilious attack. He suggested that she should have three or four grains of calomel, and an aperient on the following morning. It is always easy to be wise after the event, and cases of criminal poisoning generally come to the notice of medical practitioners in so insidious a manner as to escape notice. Had Dr. GODFREY pushed his inquiries further than he appears to have done, its true nature might perhaps then have been diagnosed, possibly even in time to save the poor lady's life. She had a wet cloth round her head, and when asked by him the reason why, she made no reply. The intermittent character of the symptoms, and CROSS'S statement that the vomiting and diarrhœa were much better that day, were suspicious. Dr. GODFREY'S evidence would appear to have surprised both the learned judge and counsel for the defence, while the Attorney-General did not re-examine him. He was never asked to see her again, but, living so near, it does seem remarkable that he should never have called. No other medical practitioner saw her, no nurse was procured, and all the evidence as to symptoms came from non-professional witnesses, Miss JEFFERSON'S being especially valuable. This lady kept a diary, from which most of the preceding facts have been given, and on the 26th she began to be alarmed. On the 27th and 28th she noticed that the deceased's eyes seemed irritated and inflamed; the latter also complained that she could not see distant objects, read the paper, or write. On the 29th she was getting weaker and was drowsy; she was constantly vomiting. On Wednesday, June 1st, Miss JEFFERSON saw her alive for the last time; she was quite intelligent, able to express her wishes, give orders, and to describe her state. The exact time of death could never be ascertained, as only the prisoner was present; but according to his statement made to the servants it occurred about 1 A.M. on Thursday, June 2nd. The deceased was not dressed in the usual grave clothes, and the prisoner assisted two of the servants in laying her out. The clergyman who had visited her was not allowed to see her when he called a second time, and other friends were kept away from her from alleged reasons which were not correct. On June 3rd the prisoner registered the death as due to "typhoid fever," he being both the informant and the certifying medical attendant. Next—and this is still more remarkable—the body of the unfortunate deceased was buried on the Saturday after, at 7 o'clock in the morning, the prisoner having tried to arrange for the burial an hour earlier. He now stated to a neighbour that she had died from heart disease. On June 17th he married Miss SKINNER in London; and, the police having obtained information justifying an inquest, the body of the deceased was exhumed on July 24th, in the presence of Dr. CROWLEY (who identified it) and Dr. CHARLES YELVERTON PEARSON (Lecturer on Medical Jurisprudence in Queen's College, Cork). The result of the post-mortem examination effectually disproved that typhoid fever was the cause of death. The body was remarkably well preserved, considering the time of year and the excessive heat; the heart was found healthy, and all the appearances were consistent with death from irritant poisoning. Dr. PEARSON found crystals of white arsenic in the contents of the stomach, and obtained 1·74 grain of arsenic from this organ alone. He obtained 1·28 grain of arsenic from the liver, and found it in the spleen and kidneys. In the small intestines he found strychnine, the quantity of which he estimated at less than one-hundredth part of a grain. He was subjected to a very severe cross-examination by the prisoner's counsel, and was recalled to be questioned by the jury just before they found

their verdict. Mr. Justice MURPHY, in his charge to the jury, paid Dr. PEARSON a very high compliment, which was well deserved. It would appear to be the first occasion on which Dr. PEARSON has been required to make a post-mortem inspection, and to chemically examine the viscera in a case of arsenical poisoning. Whilst his evidence leaves nothing to be desired, it would have been more comfortable for him, and would have strengthened the case for the Crown, had there been a second analyst with previous experience of such work, either working jointly with him or independently. Such a one could surely have been found in Dublin. In PALMER'S case Dr. SWAYNE TAYLOR worked in conjunction with Dr. OWEN REES; in LAMSON'S case Dr. THOMAS STEVENSON had the co-operation of Dr. DUPRÉ; in PRITCHARD'S case Dr. PENNY of Glasgow and Dr. (now Sir) DOUGLAS MACLAGAN were engaged; and many other instances could be adduced where the same practice has been adopted. It only remains to add to the already strong case against the prisoner CROSS that he was proved to have purchased a large quantity of arsenic for the alleged purpose of sheep-dipping.

The case affords another melancholy illustration of what has been seen before—that among members of a noble profession are to be found criminals of the deepest dye. It is some consolation to reflect that in this case, as in those of PALMER, LAMSON, and PRITCHARD, the prisoner was not in actual practice, having retired from the army and never having practised as a civil surgeon. It is satisfactory to notice that there has been no delay in bringing him to justice, or any undue leniency displayed towards him by his professional brethren. His crime resembles that of PRITCHARD in its motive, each having been led to commit it in order that he might remove out of the way a wife who was an impediment to marriage with a female with whom an adulterous intercourse had already existed. It also resembled that of LAMSON in its utter audacity and recklessness of consequences, there being less cunning and more clumsiness than are displayed by the average poisoner. But it surpasses all previous cases in its wanton cruelty, its cold-blooded deliberation, its disregard of all the decencies of social life. The marriage of the second wife almost before the first could have been cold in her grave was aggravated by the fact that it took place in the very same church in which, eighteen years ago, he had married her whom he had treated so cruelly and so foully murdered. So aggravated was the case in all its surroundings, that his counsel were almost unable to make any defence. It was truly a desperate case.

In conclusion, it is to be observed that the trial was conducted with the greatest ability by all concerned, the speeches of counsel and the summing up of the learned judge being models of what they should be. The reports of the local papers are extremely good, giving question and answer, the only means by which medical evidence can be perfectly understood.

THE debate at the Pathological Society upon Professor CROOKSHANK'S paper, although confined to a very limited number of speakers, including the heads of the two Governmental departments concerned with the health of animals and of man, was yet as much as could be expected or desired in the present stage of the subject. To a large extent the discussion turned upon the question whether the disease investigated by Professor CROOKSHANK, and stated by Professor BROWN to be widely prevalent at the present time, was the same affection as that with which the cows at Hendon were attacked, when the milk they furnished appeared so conclusively to have been the medium of scarlatinal infection. Professor CROOKSHANK boldly proclaimed his belief in their identity. Professor BROWN was less positive; but neither of them was in a position to affirm it from personal observation, since they had not actually *seen* the "Hendon cow disease." Dr. BUCHANAN was therefore within his right in declaring that the Society had no concern with this question; it could pronounce only upon the nature of the disease which Professor CROOKSHANK had apparently shown was an example of spontaneous cow-pox. Dr. BUCHANAN, however, did not ignore the question of identity, but pointed out that the two affections, although similar, did not present evidence of unity upon all points, and therefore could not be considered as identical. Dr. KLEIN, who had seen both diseases, was convinced of their essential difference on grounds to which we shall presently refer. In view of such divergent opinions, it is impossible to avoid joining in the regret expressed by Professor CROOKSHANK that the report of the Hendon cow disease was devoid of any illustrations which could convey, so far as pictorial representations can, the naked-eye characters of the affection to the minds of those who had not actually seen it.

The leading questions, then, before the Society may be resolved into these: 1. What evidence is there for and against the identity of the Wiltshire cow disease and that of Hendon? 2. What evidence is there for the Wiltshire affection being indubitable cow-pox? 3. If the new disease (which, by the way, from Professor BROWN'S remarks, would seem to be remarkably common—so common as to be thought nothing of by the dairy farmer, and thus rarely brought under the notice of the veterinarian) be neither one nor the other, under what category of bovine maladies does it come? We will deal with each of these in turn, and endeavour to show how impossible it is at present to arrive at a definite conclusion. First, then, let us consider Dr. KLEIN'S reasons for disputing the identity between the two affections. He considered that Dr. CAMERON'S description of the Hendon disease should not be taken as accurate, for it was not solely based on personal observation; and, rejecting a piece of hearsay evidence adduced by that gentleman, he denied that there was a single case of infection of the hands of a milker of the Hendon cows. Professor CROOKSHANK found in his cows very strong evidence of contagion, but the transmission to man was limited to those who were unprotected, like the lad who was brought to London with well-marked vaccinal eruption. Dr. KLEIN averred that the characters of the ulceration in the Wiltshire cows, which Professor BROWN had given him the opportunity of seeing, were different from those present in the Hendon cows, for in the latter the ulcers were deeper, smaller, and more rapid in healing. Incidentally he stated that in a cow sent lately from Edinburgh through Professor BROWN there

was a greater approximation to these characters, and he heard that the milk of this cow was suspected of being the source of an epidemic of sore-throat. But he maintained, further, that the microbe discovered in the discharges from the ulcers was a different one in the two cases. He did not doubt the close similarity in many of their characters, but he pointed to many other forms of streptococci, which closely resembled each other, differing, however, in some points as to their mode of growth, the media in which they could be cultivated, and their effects when inoculated. Truly, to the uninitiated in bacteriology the points of difference between the two forms of streptococci in dispute seem very small indeed. Dr. KLEIN had failed to cultivate the streptococcus of the Wiltshire cow upon a special agar-agar peptone in which the streptococcus of the Hendon cow grew with avidity. Professor CROOKSHANK had not proved any difference in his cultures, and when Dr. KLEIN questioned if he had applied the crucial test of his own "Brand extract agar-agar peptone," Professor CROOKSHANK replied to the effect that Dr. KLEIN should make further trials of this medium before basing his opinion of non-identity upon such cultivations. When bacteriologists differ who shall decide? But Dr. KLEIN had other grounds for his view, which consisted in the existence of well-marked visceral lesions in the affected cows at Hendon which were absent from the other cows that had been sent to the Brown Institution by Professor BROWN. On clinical, pathological, and bacteriological grounds, then, he declared against the unity of the two diseases. Professor CROOKSHANK frankly admitted that the post-mortem appearances in those animals that had as yet been examined were not identical with those in the Hendon disease; but neither can it be held that the visceral lesions described by Dr. KLEIN were different in any essential part from those met with in septic poisoning. As to the clinical characters, Professor CROOKSHANK certainly did not see the Hendon disease, but neither did Dr. KLEIN see the Wiltshire affection in its earlier and more characteristic stage. The upshot of the contention must, then, apparently rest upon the bacteriological point, which, it will be admitted, is a very fine one, but of which the importance is not to be measured by its minuteness. The question is not decided, and we can hardly agree with Dr. BUCHANAN that it is one which ought not to have been raised, although it may well be that further evidence is likely to be adduced in the matter of the relationship to scarlet fever, which is, after all, *the* great issue at stake.

Apart from this knotty point, the interest of Professor CROOKSHANK's investigation lay in the evidence he adduced to prove that the disease he investigated was true cow-pox, which Dr. BUCHANAN admitted he had long been on the look-out for, and which appears to have been singularly absent from the herds for a generation or more. Professor CROOKSHANK referred to HERING's classification of the eruptive diseases of cattle, and showed that there were only two of the numerous affections described by that author which could be confounded with the disease he had studied, the one being cow-pox, the other the trivial blister-pox. He had no difficulty in showing that the disease was not the latter; and from the facts he gathered in his inquiries at the farms and mainly from the evidence furnished by the lad above referred to, he concluded, with some reason, that (1) the disease is common, (2) that it is highly contagious, and (3) that it is vaccinia. Professor BROWN confirmed the statement that it is extremely common, and that among the farmers it goes by the name of "cow-pox"; but yet that it is cow-pox—true vaccinia—has never been hitherto hinted. This question also is still *sub judice*. Those best informed on the characters of vaccinia declared that the pustules produced in the calf which Professor CROOKSHANK exhibited to the Society had none of the characters of vaccinia, and we understand that experiments are now in progress for crucially testing the point. We come, therefore, to the third question, If it be not vaccinia, what is it? Common as it is, contagious as are its properties, it must be a disease which, though closely simulating vaccinia, has hitherto escaped description by such faithful students of the complex diseases of the cow's udder as CEELY and HERING. If this be so, it is perhaps somewhat of a reproach to veterinarians that it has been overlooked; and we are glad to have Professor BROWN's assurance that the disease will be placed under the provisions of the Contagious Diseases (Animals) Act, for then there is every probability of its being thoroughly described and studied. It is time, too, that such steps should be taken, for the sake of the animals and for the milk-consumer. It comes as a revelation—and by no means a pleasant one—that hitherto milk especially country milk, must have been obtained for distribution in large quantities from animals suffering from diseases of the udder, which become ulcerative from the manipulations of the milkers; but Londoners will be glad to hear that the thorough system of inspection of the metropolitan dairy-sheds is such that "real" London milk is free from the liability to contamination with the morbid secretions of the ulcerated udder. Apart from the vexed question of scarlet fever being directly transmitted from the cow, or the interest attaching to the re-discovery of vaccinia, the debate has elicited the gratifying fact that two great sanitary departments are devoting their attention to the removal of a grave source of danger to public health in the contamination of the milk supply.

THE publication of the "Life and Letters of Charles Darwin," has stimulated anew the interest always felt alike by scientific thinkers and the general public in the great doctrine with which his name will be always associated. It has been said that DARWIN was our greatest scientific genius since NEWTON, and it may be affirmed with equal truth that since the enunciation of the law of gravitation no principle has been propounded so novel so far-reaching, so pregnant with truth and suggestiveness, as the evolution hypothesis. Yet evolution remains a hypothesis, rather than a well-defined and thoroughly established doctrine. This is admitted even by Professor HUXLEY, the boldest champion of evolution in the days when it had a hard fight for a hearing, and now its greatest surviving exponent. In his recent article in the *Nineteenth Century* he claims for evolution only the position of a probable hypothesis, but a hypothesis which accumulating evidence renders every day more probable, and which has successfully withstood all the efforts put forth to accomplish its disproof and rejection.

Yet the assertion that evolution is a hypothesis only, and not an established doctrine, may easily mislead. It is a hypothesis if we regard it as a complete scheme into which all biological and cosmological laws must be made to fit; but, on the other hand, if we define evolution as a working principle widely operative in the field of nature, but of which we cannot precisely define the scope and limits, then evolution is no longer a hypothesis, but an ascertained truth which dominates every department of the field of scientific research. In other words, there is a something—a method, a principle—which we call evolution, and of which it is no longer permissible to deny the existence, but we must await further light before we can affirm that this method or principle is all-pervading and capable of affording an adequate and final elucidation of all the phenomena of life. We may illustrate the distinction by noting the contrast afforded by the very different reception accorded to DARWIN'S two great epoch-making volumes—the "Origin of Species" and the "Descent of Man." Although his teaching excited an alarm and opposition almost unparalleled in the history of science, nothing could be more remarkable than the rapidity with which his doctrine of species gained the adhesion of the leading thinkers of the day and permeated the whole atmosphere of scientific thought. That preliminary triumph has been the gauge of a final victory. The Darwinian doctrine of origin of species, so patiently elaborated by its author and expounded with such modesty and yet with such irresistible cogency, is now, in its main outlines at least, beyond the reach of cavil. Far different has been the fate of the doctrine of the "Descent of Man." That charming volume is instinctively felt by the impartial reader to be ingenious rather than conclusive, to raise a plausible theory rather than to establish a secure doctrine. It consists, in fact, of a long chain of analogical reasoning, for which the most ardent partisan will not claim more than that it suggests a possible explanation of the facts in question. The "Origin of Species" irresistibly bears down all opposition by the mighty force of accumulated argument, and by the calm confidence with which all objections are met and overthrown. The "Descent of Man," on the other hand, rather titillates the fancy than convinces the judgment.

For the present, then, the attitude of the scientific world is one of almost universal acceptance of evolution as a working hypothesis of unparalleled value and suggestiveness, but of reserve towards it as regards its final issues and ultimate limits. Whatever may be the final form assumed by the doctrine of evolution, we owe an immense debt to DARWIN for having unlocked some of the most mysterious recesses of nature and shown us the way of future hopeful advance. His teaching has been of untold value in bringing order into the chaotic mass of scientific material, and in suggesting methods of inquiry which have proved most fruitful and profitable. In physiology, especially embryology, and in pathology, its value has been altogether incalculable. To withdraw the conception of evolution from the domain of science would now seem to us quite as impossible as to return to the Ptolemaic system of astronomy. Just as NEWTON bound the spheres together by his great hypothesis, so DARWIN has succeeded in uniting in one the multiform phenomena of life. If, as has been said, "the end of science is the detection of unity," few doctrines have so just a claim to be reckoned scientific as the doctrine of evolution.

The opposition to evolution has been due in no small measure to a mistaken notion as regards its correct interpretation. It has been often forgotten that it explains processes, not origins; that it elucidates the *method* of creation, but has no explanation to offer as to its *cause*. The recognition of evolution leaves the argument for and against a Creator just where it was, although it undoubtedly modifies our conceptions of His modes of operation. It was one of the chief merits of COMTE as a thinker that he clearly perceived that science could only explain processes and transitions, and was unable to grapple with the question of causes. Hence, quite consistently, he ruled out all inquiries into causes as unscientific. In like manner the doctrine of evolution, correctly understood, has nothing to say about causes, and the evolutionist can have just as elevated a conception of a First Cause as the man who vaguely misapprehends evolution as a sort of substitute for a Creator.

It is pleasing to note that the angry controversies which once raged round the name of DARWIN have felt the mitigating influences of the softening hand of time. No one now seriously doubts the lofty character and absolute integrity of the great naturalist; no one denies him the tribute of supreme genius. He has erected a great landmark upon the shifting sands of human progress, and amongst earnest seekers after truth his fame will ever be of the greatest.

CONGENITAL defects of sight due to visible changes in the ocular fundus or disease of the optic path are numerous. Mr. NETTLESHIP, in his lectures delivered at the Royal London Ophthalmic Hospital, has done good service by drawing attention to the varieties of congenital and infantile amblyopia. Congenital syphilis may produce hyalitis from inflammation of the choroid or retina, and cases occurring in infants a few months old were mentioned. The prognosis in choroiditis occurring in hereditary syphilis is fairly good, if treatment be begun tolerably early. Choroidal disease is not so easy to detect in infants, on account of the absence of pigmentation about the patches and the naturally pale colour of the choroid at the earliest period of life. When choroiditis occurs later in hereditary syphilis, during or after the period at which keratitis occurs, when the hair and skin, and with them the choroid, have usually darkened, there is often extreme pigmentation of the patches, even more than in choroiditis in adults. Mr. NETTLESHIP gives valuable advice on the method of testing the vision of infants, and his remarks are worth quoting. "The chief things to notice are: whether the child turns its eyes towards the window, or follows the flash of the mirror in the dark room (or, what comes to the same thing, turns its head away, or blinks its lids under the same tests); the presence or absence of nystagmus; and the state of the pupils." He believes that healthy infants usually look at a bright light thrown steadily into the eyes a day or so after birth, but that from three to six weeks' education is necessary to enable them to follow a moving object in such a way as to give the appearance of intel-

ligence or "noticing." "If the infant's eyes oscillate rhythmically, or even wander constantly though irregularly, the sight is almost certainly bad, for we know very little of primary nystagmus from nervous disease in infants." The state of the pupils is of secondary importance, because the natural range of pupillary action in infants seems to be less than it is when the eye has attained full development. It is also pointed out that in children the light reflex may be present, even though the child be absolutely unconscious of light. A caution is given, in the examination of the pupils in infancy, not to touch the face or head, and so not to provoke movements of the head or eyelids. Besides syphilitic choroido-retinitis and hyalitis, Mr. NETTLESHIP recognises three other groups of infantile amblyopia. Microcephalous infants with premature closure of fontanelles and sutures may have gross choroiditis, apparently not syphilitic. Failure of sight may come on without papillitis during an illness diagnosed as meningitis, but not ending fatally. The fourth group comprises cases of blindness in infants without history of acute cerebral symptoms, and frequently without ophthalmoscopical change. In every case of infantile blindness it is important to observe the shape and size of the cranium as compared with the face, and the condition of the fontanelles and sutures; to inquire fully into the question of congenital syphilis, and of any acute illnesses the child may have had; of defective sight or intellect, or other cerebral or spinal disease in any kinsfolk, and of consanguinity of parents; and it must be remembered that an infant may be very well nourished, although syphilitic. The fact that in blind infantile idiots the pupils may react to light would seem to show that the optic nerve contains pupillary or reflex as well as visual fibres.

Hypermetropia, being due to imperfect development, is usually attended with defect in the acuteness of vision. It is possible for slight or even temporary defect of sight to excite nystagmus in an infant predisposed to it, and the amblyopia may be rendered permanent and possibly increased by the oscillation, and thus may be explained some embarrassing cases of nystagmus with amblyopia. Albinos also afford examples of the combination of defective acuity of vision with nystagmus, and yet probably neither condition is associated in them with any particular kind of refraction, though nearly all are more or less ametropic; albinism is not necessarily accompanied by amblyopia, but on the other hand, an albinotic infant may seem almost totally blind. Common retinitis pigmentosa, though not present at birth, invariably goes slowly on, once it has begun, to blindness, and in its later stages is complicated by posterior polar cataract and incurable progressive deafness. Mr. NETTLESHIP constructs a seventh group of cases of infantile amblyopia, having an affinity in pathogeny to retinitis pigmentosa, and not distinguishable from it if only the actual subjective symptoms be considered, but having, nevertheless, important differences. In this malady the night-blindness is stated to have been present from the earliest childhood, seems to be stationary, and does not appear to have the same pathological associations as the other disease; and some of the patients become deaf. The ophthalmoscopical appearances consist chiefly in irregularity of the pigmented epithelium and the presence of scattered minute white dots. The early presence and stationary character of the symptoms in this group of cases suggests that the choroidal and retinal changes are probably of intra-uterine date. In the eighth group of cases day-blindness of congenital origin is the chief feature, and is attended with colour-blindness as well as defective perception of form. The ophthalmoscopical changes are altogether insignificant; in these particulars it is complementary to the cases last considered.

Besides the groups above mentioned, there remains a number of cases in which defect of sight without any sign of disease is confined to one eye. In retro-bulbar neuritis and in disease of the optic nerve resulting from injury the reflex action of the pupil is interfered with, but not in the cases now being considered. The defect of vision may be very trivial, or so high that only large objects can be seen; it may be perfectly remediable with glasses, in which case there is almost always anisometropia, and the defective eye is nearly always the more ametropic of the two. Glasses may only partly remedy the defect, or they may not help at all. Squint may have been present at some period, usually convergent, but this has been cured by operation or has disappeared without treatment; in others, again, convergent or divergent squint of the amblyopic eye is still present. Finally, Mr. NETTLESHIP adduces facts and considerations to show that neither the theory that amblyopia in cases of hypermetropia is due to suppression of one image, nor the view that amblyopia is dependent on congenital imperfection of an eye or visual centre when one eye is concerned has been proved; but that whilst the former view requires proof not yet given, there is much evidence, both direct and indirect, in favour of the latter.

As the time draws nearer for the consideration of the various proposals for forming a new University or degree-granting institution in London, the various bodies interested, and the public in general, are taking a more active interest in the question. By the 16th prox. all petitions and objections must be lodged before the Privy Council, and it is understood that their consideration will begin at once, and that there will be no further delay. The next meeting of the Convocation of the University of London is fixed for January 17th, and the question is sure to be debated there also, on the motion of the Annual Committee expressing approval of the action of the Senate in opposing the movement for forming a Teaching University by the junction of University and King's Colleges with the metropolitan medical schools. Professor HENRY MORLEY has given two valuable lectures on the subject at the London Institution, and has clearly pointed out, from the sides of art and literature, how numerous, but how unorganised and chaotic, are the various educational agencies now existing in London, and has made some valuable suggestions for blending them into an organised whole. In his lecture, as in a pamphlet published some time ago, Professor MORLEY points out that he would prefer to include these bodies with the existing University by adding some new machinery to work with the present system. "The work of the London University had been done as thoroughly as any human work could be done," says Professor MORLEY; and surely this is the very best reason

for not interfering with the present arrangement by imposing on it work of an entirely different character. If a new Teaching University were established, it should be as distinct as possible from the existing one; in fact, it must do the work which the present University threw overboard when it opened its examinations to the whole world without requiring certificates of training or attendance on lectures. Such a University would have a good and separate mission, and would not weaken or impair the one now existing. One body would ensure due training, the other would, as now, keep up a high examination standard, and many pupils would avail themselves of the advantages of both. The objections against the new Teaching University relied on in the statement by the Senate of the University of London appear to us to be singularly weak. The Privy Council is desired to stay its hand, because Convocation and the Senate are engaged "in the consideration of a plan for giving to the professors in the institutions from which graduates proceed an organisation and a larger influence in the counsels of the University."

It is not likely that this scheme will yet see the light; in fact, it cannot be passed by Convocation and the Senate until after the hearing of the petitions by the Privy Council. Again, as this scheme can only be a slight modification of those of Sir PHILIP MAGNUS and Lord Justice FRY, every one practically knows what it will amount to. It cannot be so framed as to satisfy the need for a Teaching University, managed by teachers, without at the same time arousing the jealousy of the graduates towards the teachers. In fact, nothing of the kind will be attempted, and Boards of Studies, consultative only and without any real executive powers, are the only opportunities for influence offered to the teachers. Moreover, the union of country institutions with metropolitan ones, as now proposed, is altogether contrary to the ideas suggested by the Association for forming a Teaching University *in London*. The other objections, as to the multiplication of universities and the independence of the examiners from all undue influence of the teachers, are even more absurd. A complete answer is found in the case of the Victoria University. By the formation of this University, a great and almost unexampled impetus has been given to university work and higher education in the north of England, and we should expect similar good results to follow from the establishment of Universities on similar lines, one in London, and another in the Midlands. Teaching Universities would then be within the reach of our population in England, as they now are in Scotland and in Germany. In Victoria University, as shown by a recently published list, the most eminent professors and teachers in Great Britain are chosen as external examiners, and it is little less than an insult to insinuate that they are unduly biased by their local colleagues, as if true virtue could only exist within the walls of the London University. Even there, in the Faculty of Medicine, almost every examiner at the present time is a teacher in a metropolitan school of medicine, and must necessarily, to a certain extent, examine his own pupils. If these be the highest reasons that the Senate can bring forward for opposing the new movement, we cannot expect them to have much weight with Her Majesty's advisers.

Annotations.

"Ne quid nimis."

THE EMBANKMENT BUILDINGS.

A SUB-COMMITTEE, consisting of Mr. Marshall (chairman), Dr. Burdon Sanderson, Dr. Lauder Brunton, Dr. Ralfe, Sir Joseph Lister, and Mr. J. Hutchinson, have reported to the Colleges' Land Committee that the limitation in the extent of the ground at the back of the Examination Hall precluded the possibility of erecting buildings on plans similar to those adopted elsewhere. They therefore recommended that the original idea of two lateral blocks of four storeys, each containing four large rooms, with a theatre between them, should be adopted, with the erection of two galleries of rooms over the back part of the theatre from wing to wing, at a sufficient elevation to obtain a good south light. These galleries would provide eight rooms twenty feet long and fifteen feet broad, and the theatre could be made to accommodate 410 persons. The architect's approximate estimate for the construction of such buildings amounts to £26,000; and the sub-committee consider that an outlay not exceeding £5000 would be needed for internal fittings, the precise nature of which was postponed for future consideration. The report was adopted by the Committee, and will be submitted to the Colleges in due course.

COMPARATIVE MORTALITY IN ENGLAND AND IN AMERICA.

THE imperfect system of registration of vital statistics in America prevents the possibility of a useful comparison between the rates of mortality in England and in America. The rapid growth of life assurance in the United States has accumulated, however, a mass of statistics of mortality of still greater value for estimating the duration of life in that country than the results of any system of civil registration of births and deaths yet existing. During the thirteen years 1859-72, the number of life policies existing in the United States increased from 50,000 to 800,000. After 1872 the number of policies remained comparatively stationary for some years, but more recently the number has probably again increased rapidly. Fortunately for the present purpose—a comparison of the value of life in England and in America—a valuable series of experience tables, based on the life and mortality statistics of thirty American life assurance offices, was published a few years ago. The basis of experience upon which these American tables are constructed is sufficiently large to give the results a very definite value. The tables dealt with more than half a million of policies existing at the end of 1874, as well as nearly 50,000 previously lapsed by death, and nearly an equal number that had lapsed by surrender or discontinuance of premium—in all, with more than 600,000 policies, covering considerably more than 4,000,000 of years of life under observation. Among the more interesting results shown by these tables, it may be noted that the expectation of life of insured males in America at twenty years of age is 42·1 years, and exceeds by one year the expectation of males in England by the English experience tables; this excess in the male expectation of life in America is maintained through life, although it steadily decreases, until the advanced age of eighty-four, when the difference in favour of American life disappears. With regard to female life, the expectation of life at the age of twenty is precisely the same (40·8), both by the American and English experience tables; but afterwards, and until the age of forty-seven, the American expectation somewhat exceeds the expectation according to the English tables, while after the age of forty-seven the difference is

in favour of English life, increasing to a year at eighty years of age. One other marked feature disclosed by a comparison of these American and English experience tables is that in America expectation of life among insured females is lower than among insured males after the age of fifty-three years, while it is identical with that of males. It is well known that by all the principal English tables expectation of life among females exceeds that among males after the age of thirty-five years, and shows an increasing excess to the end of life. These differences between the expectation of life in America and in England relate, it should be remembered, solely to insured lives, mainly belonging to the middle and upper classes. If similar statistics were available for the general population, very much wider differences between the mean duration of life in America and in England would probably be shown.

ASSIMILATION OF FAT IN CATARRHAL JAUNDICE.

DR. P. A. VALTER, in a trial lecture recently delivered before the Conference (Senate) of the Military Medical Academy of St. Petersburg for the qualification of *privat-docent* or extra-mural teacher, dealt with the assimilation of fat in persons suffering from catarrhal jaundice. He detailed a number of observations and analyses he had made in several cases of this description, the results showing that the condition of catarrh of the bile ducts diminishes in a very marked degree the fat assimilated. It also produces a similar effect on the assimilation of the nitrogenous principles of the food ingested, but here the difference between the diseased and the healthy condition is not nearly so marked. He also found that when the patients were taking alkaline mineral waters the assimilation of fat was somewhat increased; the same was observed in the case of healthy persons. Thus, in a case of jaundice the percentage of fatty acids ingested which was found in the fæces, and therefore not assimilated, was 43·06 while taking the waters, and 45·95 when these had been left off, but after health had been re-established the percentage found was only 7·83. The percentage of nitrogen assimilated in a similar case was 88· while taking the waters, 77·4 after having left them off, and 91·7 after recovery of health. Dr. Valter described his observations, which were carried out in Professor Manassein's clinic, with great minuteness. The lecturer was accepted by the Senate as *privat-docent*.

MEDICINAL WARFARE.

BEFORE the first shock of the suggestion of dealing with excess of rabbits by cholera passes away, another idea reaches us which at first sight appears equally monstrous. An electrician, as quoted in the *United States Army and Navy Journal*, says: "It is well known that the nitrate (*sic*) of amyl possesses the power of causing insensibility very quickly in a human being breathing its fumes. The effect is equivalent temporarily to a paralytic stroke. Now, nitrate of amyl is very cheap and plentiful. I propose to fire shells filled with this chemical instead of gunpowder. It will not be necessary to penetrate a ship. A few gallons of this nitrate dashed on the deck of a war-ship would soon render her crew helpless. The most powerful ironclads would be even more vulnerable than the light cruisers, for they would be sucking down great draughts of air through their artificial ventilators, and the odour would thus rapidly permeate the whole ship. The whole crew being rendered helpless for an hour or two, the ship could of course be towed into a safe spot, while the captors ventilated her and removed the insensible men." This is indeed scientific warfare. Is all the fun to be on one side? What if the powerful ironclad attacked possessed similar shells? What becomes of the directions of the British Pharmacopœia about the cautious use of amyl? Is the whole suggestion based upon this, or is it a joke? The physiological effect of amyl is indisputable: the enemy, if sufficiently affected, would blush; and his arterial tension, and probably his esteem for his opponent, would be diminished.

FEVER IN LONDON.

THE continued diminution in the prevalence of scarlet fever is evidenced by the fact that only 158 cases of this disease were admitted into the hospitals of the Metropolitan Asylums Board during the week ending Dec. 16th. The number of patients discharged is now so much exceeding the admissions that a considerable amount of spare accommodation is at the disposal of the Managers; as yet, however, there is no reason for believing that this will be immediately required for any other disease. During the week under consideration enteric fever contributed 19 cases, typhus fever 2, and small-pox 2; both the typhus cases occurred in one house in Limehouse, the small-pox cases in Poplar and Mile-end. The Managers are making preparations for an accession of small-pox during next year, and have decided to provide a hospital for 728 convalescents from small-pox on the Gore Farm Estate at Darenth. The erection of this institution will, we presume, be undertaken forthwith.

THE MEDICAL JURISPRUDENCE OF INEBRIETY.

WE have received *proofs* of certain propositions which were laid before the New York Medico-Legal Society for discussion by their President, Dr. Clark Bell. In the synopsis before us we find the subject of inebriety arranged for forensic purposes under two heads—(*a*) civil obligation, and (*b*) criminal responsibility. As regards civil relations, it is noted that the definition of the fourth variety of *non compos mentis* of Lord Coke was that the individual of unsound mind was so "by his own act as a drunkard." After briefly touching on the question of delirium tremens, the author proceeds to show that when a person is wholly deprived of his reason by intoxication he cannot make a binding contract or act as a witness. It appears that the Supreme Court of every American State has in the matter of inebriety the same function which the Court of Chancery exercises in this country, but by legislative enactment the reference is made to different courts in certain States. Thus in New Jersey the Orphans' Court has the supervision whilst in South Carolina both the Common Law and Equity Courts can deal with the cases in question, "It will be observed that in many of the American States the *habitual drunkard* is classified and treated under the same provisions, and in the same manner as the lunatic and idiot." In New York, for example, it has been ruled that all contracts made by habitual drunkards, who have been so adjudged, are void, and that the civil disability continues after the committee has been appointed to supervise the estate and person, so that it remains binding even after the habitual drunkard has become perfectly sober, and fully aware of the nature and consequences of his acts. According to Dr. Clark Bell, the American law affords even greater protection still, for when a man has become so addicted to drink as to seriously interfere with the care of his estate, the court may step in and take absolute control of both person and estate. As regards criminal responsibility, we find there is little or no difference between the American and English law; both hold that drunkenness in itself is, *primâ facie*, to be considered as an aggravation rather than an extenuation of guilt—and rightly so, because, although a person may be so under the influence of drink as to be incapable of governing his acts, he is presumed when sober to have been able so to conduct himself as to avoid constructing a proximate cause of the commission of crime. The New York penal code lays

down that "no act committed by a person while in a state of intoxication shall be deemed less criminal by reason of his having been in such a condition; but whenever the actual existence of any particular purpose, motive, or intent, is a necessary element to constitute a particular species or degree of crime, the jury may take into consideration the fact that the accused was intoxicated at the time, in determining the purpose, motive, or intent with which he committed the act." This is sound law and common sense. This principle was acted upon last week in a trial at the Old Bailey, where a man was convicted of manslaughter, and not murder, for killing his wife when he was intoxicated. The motive in such a case must be considered rather as the impulse of a madman than the conscious purpose of a sober and sound individual.

ORGANISMS IN DYSENTERY AND HEPATIC ABSCESS.

IN the current number of the *Centralblatt f. Bacteriologie* Dr. Kartulis of Alexandria announces the interesting fact of the discovery within the pus of hepatic abscesses secondary to dysentery of the amœbæ which are constantly present in the dysenteric bowel. He had previously detected these amœbæ in the walls of such abscesses, but the case he now records is the first in which they were found in the contents. The case was a fatal one of abscesses in the liver and empyema supervening upon dysentery, from which the patient had suffered for three months. One of the abscesses was drained during life. The pus from this abscess and that of the empyema contained the amœbæ, but in the second intact abscess these animalcules abounded. They could be detected with low powers of the microscope as highly refractile bodies, which under high powers were seen to have active mobility. Their protoplasm was coarsely granular, but their nuclei and vacuoles were not very clear. Some of them contained within their substance red blood-corpuscles, which moved in the currents of the protoplasm. The amœbæ corresponded for the most part in size with those found in dysentery. Dr. Kartulis says that he has examined in all twenty cases of liver abscess, nine of idiopathic, and eleven of dysenteric origin. In the former the pus of only one case revealed any micrococci, but by cultivation the pus yielded the Staphylococcus pyogenes aureus in six cases. In all fatal cases in which the pyogenic membrane was examined micrococci were found within the capillaries bounding it. Of the eleven dysenteric cases, cultivations of the pus were made four times, yielding once the Bacillus pyogenes fœtidus and once the Staphylococcus pyogenes aureus. In eight cases examined post mortem the "dysentery amœba" was found in the detritus of the pyogenic membrane, as well as between the latter and the intact liver substance. In most of the cases colonies of micrococci, and in one bacilli, were found in the capillary vessels.

DRINKING IN NEW SOUTH WALES.

WE have lately remarked with pain on the drinking habits of some of our colonies, notably of New South Wales. A Royal Commission has been occupied for many months in taking evidence on this subject, and arrives at conclusions which should excite the concern of every inhabitant of the colony. The premier colony has the distinction of drinking more intoxicating drink, and that of a worse quality, than almost any other English-speaking community in the world. This is a bad distinction, which the following figures seem to confirm. The drink bill of the United States per head is £1 13*s.* 6*d.*, of New Zealand £3, of the United Kingdom £3 7*s.* 10*d.*, of Victoria £4 13*s.* 11*d.*, of New South Wales £5 14*s.*! In the city of Sydney alone there are said to be 3000 persons known to be habitual and absolutely hopeless drunkards. Dr. Maurice O'Connor, visiting surgeon of Durlinghurst Gaol, gave evidence that of 34,266 persons in six years and a half, 5685 were under actual medical treatment for diseases caused by drink. We are informed that not only does the colony drink more than other similar communities, but that it drinks much more than it did twenty years ago. The best symptom we read of is that the commissioners and the working classes are decidedly in favour of a restriction on the number of public-houses, and the entire prohibition of Sunday traffic. There is a law for Sunday closing, but it is shamefully evaded. One explanation for this sad state of things is perhaps the number of single colonists with little home life or comfort. But nothing can justify such drinking, or the community which, in the name of liberty, sanctions t. Ministers of religion and members of the medical profession should combine to amend a state of matters so fatal to health and morals.

THE LEICESTER AND LEICESTERSHIRE PROVIDENT DISPENSARY.

The *Leicester Daily Mercury* contains the report of a meeting of members of the above institution called to consider the management of it, under the presidency of the Rev. A. A. Isaacs. The President vindicated the right of members to criticise the management of the dispensary. The chief point of his complaint was that the manager received from the funds something near £1000—partly, as we gather, from salary, and partly from commission. He related that he had communicated with the chairman of the Board of Governors, Mr. W. H. Ellis, but seemed to get little approval from him of his complaints. Another grievance was that the members had no voice in the nomination of the Board of Governors, the subscribers only having the nomination in their hands. The financial facts brought out were that the expenses of the Society amounted to £2322 1*s.* 9*d.*, of which the members contributed £1246 18*s.* 5*d.*, leaving £1075 3*s.* 4*d.* to be provided by the subscribers. The year commenced with a balance due the treasurer of £986 18*s.*; it ended with a balance of £493. The complainants do not seem to have been very successful in carrying their resolutions. The manager's merits were vindicated by members of the Board of Governors. In the end a resolution was passed calling for a scrutiny of the accounts, and the meeting was adjourned. It would be interesting to know what proportion of the receipts fall to the lot of the medical staff and what work they have to do for what they receive.

WANT OF A SANITARY SYSTEM IN RUSSIA.

THE Vice-Director of the Russian Medical Department, Dr. Bubnoff, has recently issued a report on Sanitation in Russia, in which he remarks that no working sanitary system can be said to exist in the empire. This is, indeed, only too true, as all the reports which pass into the archives of the Medical Department must impress on the minds of those who, like Dr. Bubnoff, are responsible for the sanitary condition of Russia. The death-rate in some districts ranges from 60 to 80 per 1000, of which an enormous proportion is due to mortality amongst children—in some places, indeed, as much as 79 per cent. of the total mortality. In spite of a high birth-rate, the population is increasing only at the rate of 1 per cent. Every year some 2,800,000 persons die in Russia. According to Dr. Bubnoff's statistics, something like 1,000,000 of these deaths may fairly be traced to preventable causes. There is a great paucity of medical men, of whom there are only about 5000 altogether for 100,000,000 inhabitants, and these of course tend to congregate in the towns, so that in rural districts doctors are to be met with only at long intervals.

LOBAR ARRANGEMENT OF PHTHISICAL LESIONS.

AN examination of the literature of pulmonary phthisis will show how little attention has been paid by most writers to the question of the exact distribution of the lesions in the lungs and their relation to the chest wall. Dr. Kingston Fowler has gathered together some facts of importance, and in the *Practitioner* gives us the outcome of his own experience. He believes that there is a definite mode of extension of the lesions of phthisis through the lungs, and has found great assistance in the diagnosis and valuable aid in the prognosis from a recognition of this fact. We agree with Dr. Fowler in thinking that there probably is in most cases of phthisis a distinct "line of march." The extreme apex of the lung is not often the site of the primary lesion; it is situated from an inch to an inch and a half below the top, and rather nearer to the posterior and external borders. Lesions in this region tend to spread in the first instance backwards, possibly from inhalation of the virus whilst the patient is lying down. This accounts for the fact that an examination of the supra-spinous fossa will often give certain evidence of the presence of disease when the physical signs in front of the chest have left some doubt. From this primary focus, which in front corresponds either to the supra-clavicular fossa or to a spot immediately below the centre of the clavicle, the lesions often first spread downwards along the anterior aspect of the upper lobe, about three-fourths of an inch within its margin, frequently occurring in scattered nodules, separated by an inch or more of healthy tissue. The second and less usual site of the primary affection of the apex corresponds on the chest wall with the first and second interspaces below the outer third of the clavicle. The lines of extension are usually downwards and backwards. The lower lobe of the lung primarily diseased is usually affected at a very early period. The site of the primary infiltration of the lower lobe is generally situated about an inch below the upper and posterior extremity of the apex of the lower lobe, and this situation corresponds on the chest wall to a spot opposite the fifth dorsal spine midway between the border of the scapula and the spinous processes.

THE PROGRESS OF BOTANY IN CALCUTTA.

SURGEON-MAJOR G. KING, the Superintendent of the Royal Botanic Garden, Calcutta, has recently presented his annual report to the Secretary to the Government of Bengal. This being the hundredth annual report, he has deemed it a fitting opportunity for giving a brief history of the Garden. Founded under the advice and guidance of Colonel Robert Kyd, it originally comprised a large collection of exotic plants, chiefly from the Straits. Subsequent superintendents enlarged the original scheme of the work, and did much to further the systematic study of the plants of India. Collecting expeditions were organised, and a botanical survey of a large part of the Indian Empire was undertaken. It was originally intended that the Garden should be a source of botanical information, and a centre to which exotic plants of economic interest could be imported for experimental cultivation, and from which in turn they could be issued for distribution. It was also intended to assist in introducing indigenous Indian products to new markets, and to be not only a botanical, but also a horticultural and agricultural garden. In early days the Garden undoubtedly did service of a negative nature by demonstrating that certain desirable natural products cannot be grown in Bengal. Later the Garden bore an important part in the final establishment of the tea industry in Northern India, and also in initiating and carrying to a successful issue the cultivation of the quinine-yielding cinchonas of the Andes. Under the present superintendent much has been done to repair the ravages of cyclones in 1864 and 1867, new roads and footpaths have been made, and three new conservatories have been erected. The interchange and distribution of plants and seeds have gone on actively during the year; 8064 plants have been received, and 46,104 issued; 933 packets of seeds have been received, and 2534 packets have been distributed. The report shows very clearly the valuable character of the work carried on at the Botanic Garden, Calcutta. It is certainly desirable that such authoritative help should be given to check the needless waste of individual efforts.

ACTION TO EXTORT MONEY FROM MEDICAL MEN.

WE publish in another column an oft-told story of the risks run by medical practitioners daily in the discharge of their duties. The repetition of the publication of such cases seems needless and *ad nauseam*. But, in truth, it is only by their publication that the evils attendant on them can be exposed or arrested, and that the *moral* they convey can be sufficiently impressed on busy practitioners. Men in the midst of a day's work, and called on, perhaps unexpectedly, to consider whether a servant has typhoid or constipation, are apt to forget the amenities of procedure. There is not a day in any busy practitioner's life in which he is not almost inevitably thrown into circumstances out of which a prurient or malicious mind might construct a plot and a case for his discredit or ruin. This is no reason, however, why he should not act with excess of caution. The case we publish in full elsewhere bristles with lessons. In our profession we need "to be wise as serpents and harmless as doves." The evidence of Mr. Gittings' high character does not permit any doubt as to the propriety of the judgment against his accusers, save for its excessive leniency. But we must not the less insist that he would have exercised a just discretion in leaving the exact diagnosis of the servant's case till he could confer with her mistress. We regard his case as one for the sympathy of the profession, and as illustrating how badly we are in want of an efficient means of medical defence.

THE MICROBE OF SYPHILIS.

DR. J. DISSE, Professor of Pathological Anatomy, and Mr. K. Takaki, Professor of Normal Anatomy, in the Tokio University, Japan, publish in the first number of the Reports of the Medical Faculty an account of a series of experimental researches, on which they have been engaged for some time, dealing with the nature of the syphilitic virus. They examined chiefly the blood of syphilitic persons, especially of such as had been cured of all manifestations of the disease. They selected the skin of the face on account of its great vascularity, of course cleaning it very carefully with antiseptics before making the necessary puncture. In most of the cases spherical bodies, nearly 0·001 mm. in diameter, which could be stained by Gram's method, were found; these occurred singly or in groups between the blood-corpuscles. They were not easy to be distinguished unless the layer of blood was extremly thin. A magnifying power of 350 diameters was used, an oil-immersion lens and a good illumination being indispensable. They were, the writers believe, invested with an envelope. In non-syphilitic subjects, whose blood was examined with similar precautions, these bodies could not be found. From blood containing these organisms cultures were prepared, various media being employed. Of the cultures attempted about three-fourths were successful. Of course, extraneous organisms made their appearance, but with care pure cultures were obtained. When they were examined microscopically, there were found—1. Simple spherical forms, having a diameter of 0·0008 mm. 2. Double spheres, looking

like short rods with rounded ends; the length of these was 0·0018, and the breadth rather less than half the length. 3. Chains and groups really formed of the double spheres. 4. Occasionally three spheres in line, measuring 0·0027 mm. All these forms were invested with envelopes which did not take the stain, and therefore were difficult to distinguish. In one culture an ovoid bacterium with a clear spot in the centre was found on the third day, but subsequently this had apparently changed into the ordinary form. The double spheres, or diplococci, as they evidently were, were found to have a movement decidedly greater than non-pathogenic cocci, with which they were compared. The single cocci had no movement, and did not multiply. The diplococci were seen in the process of multiplication, which was accomplished as follows: the two cocci separated quickly, and immediately afterwards each divided into two, which did not part company, but remained joined together, forming a new diplococcus. It was evident that the diplococcus must be the perfect individual, as it presented the phenomena of movement, growth, and multiplication. The single cocci without movement were considered to be arthrospores, and these were the only pathogenic organisms found in the blood in latent syphilis. Cultures of these arthrospores from the blood of syphilitic subjects, which consisted mainly of diplococci, were used to inoculate animals, and produced in them changes which, though not identical with the morbid changes generally found in human syphilitic subjects, bore so close a relation to them that there was little doubt that the disease was really syphilis. Hereditary syphilis was also produced, as evidenced by the examination of the placentæ and of the fœtal offspring of animals which had been inoculated. In a week's time after the inoculation the organisms could be detected in the animals' blood. Should these researches be confirmed, the discovery is of great importance; but it is as well to point out that hitherto the ape has been the only animal in which successful inoculations have been alleged to be successful (Klebs), and even in these cases the evidence that the caseous foci produced were syphilitic and not tubercular is incomplete; whilst as to micro-organisms, which have from time to time been found in syphilis, none, except those which were obviously due to septic contamination (see THE LANCET, vol. ii. 1887, p. 771), coincide with those above described, and Lustgarten's bacillus is of quite a different class.

TRADE USES OF PROFESSIONAL NAMES.

DR. JOHN WILLIAMS deserves the thanks of the profession for his attempt in the High Court of Justice to restrain a firm of surgical instrument makers from using in their trade catalogue Dr. Williams's name as the inventor of a certain vaginal syringe. It would be thought that a respectable firm would not lightly use the name of a distinguished practitioner in a common advertisement, or, at least, that on being remonstrated with for doing so they would immediately apologise and desist. This they actually refused to do, and Dr. Williams had no remedy but the costly one of law. Unfortunately this proved a broken reed. The judge admitted that Dr. Williams's request was reasonable. He even went the length of saying that the defendant had no more right to use the name of the plaintiff than to take his purse. But he did not grant an injunction. He would have done so had he been dealing with the case as a *res nova*. But he was hindered by a surprising judgment to the contrary effect in the case of Clark *v.* Freeman, in which the name of Sir James Clark was used to set off a pill which he had never heard of, and which he would never have dreamt of telling his patient to take. In that case Lord Langdale refused the injunction. This was "surprising" indeed, as the judge said. Only one thing is more so to the lay mind—that Mr. Justice Kay should have felt bound by a judgment so contrary to justice, common sense, and the interest of the public. Dr. Williams has done what he could, and no one who knows him would doubt his perfect disgust with such methods of business.

PROFESSOR LANKESTER AND THE UNIVERSITY OF OXFORD.

PROFESSOR LANKESTER has obtained a mandamus to compel the authorities of the University of Oxford to hear his defence against his dismissal from the office of examiner in Animal Morphology in June last. It would appear that Professor Lankester conducted a practical examination as well as a written one on the same day, instead of holding a written examination on one day and a *viva voce* examination on two other days, as fixed by the authorities of the University. Consequently the Vice-Chancellor summarily dismissed him. Doubtless the conditions of the examination as laid down by the authorities are obsolete, and require to be altered on more modern lines.

EXTENSION OF SMALL-POX.

SMALL-POX is still extending, especially in South Yorkshire and in the northern part of Derbyshire. The outbreak in Leeds has assumed large proportions, and it is stated that some of its diffusion is through common lodging-houses tenanted by tramps from Sheffield. The Town Council of the latter place have decided that they cannot wait for formal official inquiry and sanction, and that they must, in view of the emergency, proceed with their new small-pox hospital without the approval of the Local Government Board. We hope that sanitary authorities generally will turn their attention to this subject of small-pox isolation, before they find themselves confronted with an occurrence of this disease; for unless arrangements beyond those needed for the other current infectious fevers are decided on in advance, public bodies may find themselves beset with difficulties and opposition, that are almost certain to increase year by year.

THE COMMA BACILLUS IN NEW YORK.

IN the *New York Daily Tribune* of Nov. 27th there is a short leader setting forth that pathognomonic importance is attached to the comma bacillus by some authorities in New York. The arrival of an Italian steamer with a suspicious case resembling cholera embarrassed the medical officers of health. The Carnegie laboratory was put to its proper use. The comma bacillus was discovered, and the diagnosis of cholera was delivered with confidence. The steamer was ordered to remain in quarantine, and other preventive measures were used. A second case occurred in New York, in which the symptoms were like those of true Asiatic cholera. But a careful search for the bacillus proved unsuccessful, and the case was soon well. We are not quite so sure in this country of the value of the comma bacillus as they seem to be in New York.

A CURIOUS VERDICT.

AN inquest was recently held at Little Ilford before Mr. C. C. Lewis, touching the death of Elijah Cook, aged forty-seven. The deceased was a grave-digger at Manor-park Cemetery. He was found dead in bed. The jury found a verdict of "Death from disease, the precise nature of which was not known, but probably from heart disease." We are informed that no medical evidence was called. If this was the case, we do not hesitate to say the judicial ceremony was singularly faulty. Surely a doctor is the person best

qualified to assist a coroner's jury in arriving at the truth as to the cause of death. If professional testimony had been adduced to the effect that the deceased had suffered from cardiac trouble, and the other facts were consistent with the supposition that death arose from syncope, we see no reason why a post-mortem examination should have been made. On the other hand, where more than reasonable doubt exists as to antecedent disease, and as the actual cause of death must be to a great extent problematical in the case of a person found dead, it would be far more satisfactory for the coroner to order the fullest investigation.

THE LATE ARTHUR FARRE, M.D.

WE regret to record the death, on the 17th inst., of Arthur Farre, M.D., F.R.S., Physician Extraordinary to the Queen. Born in 1811, Dr. Farre received his early education at the Charterhouse, and then proceeded to Caius College, Cambridge. He received his professional education at St. Bartholomew's Hospital, and took the M.B. degree at Cambridge in 1833, and that of M.D. in 1841. Becoming a Member of the Royal College of Physicians in 1838, Dr. Farre was elected a Fellow in 1843. He was lecturer on Comparative Anatomy at St. Bartholomew's Hospital in 1836 and 1837, and on Forensic Medicine from 1838 to 1840 inclusive. For the long period of twenty-two years—viz., from 1841 to 1862—Dr. Farre was Professor of Obstetric Medicine at King's College and Physician-Accoucheur to King's College Hospital, being appointed Consulting Physician to that institution in 1863. He acted as Censor, Examiner, and Councillor in the Royal College of Physicians, and was appointed Harveian Orator in 1872. For twenty-four years he was Examiner in Midwifery in the Royal College of Surgeons. In addition to being Physician Extraordinary to Her Majesty, Dr. Farre was Physician-Accoucheur to the Princess of Wales, the Duchess of Edinburgh, the Princess Christian of Schleswig-Holstein (Princess Helena of Great Britain), and the Princess of Leiningen. He also attended the lamented Princess Alice of Hesse Darmstadt in her first confinement.

EFFECTS OF PHOSPHORUS ON YOUNG ANIMALS.

DR. ALEXANDER KISEL of St. Petersburg, who has made a series of observations on the effect of small doses of phosphorus on young animals, has found that it never exerts any beneficial effect on the growth of bone, but that, on the other hand, the apparently slight disorder of the digestive functions which very small doses produce is liable to result in death. When given to puppies in doses of 0·0001 gramme per kilogramme of weight, symptoms of chronic poisoning were produced, with atrophy and disintegration of the bones. In doses of half this amount the development of the animal was retarded, but those equal to 0·000033 gramme per kilogramme of weight appeared to be innocuous and produced no effect at all upon the body.

THE DECLINE OF CHINESE TEA.

THE decreased consumption of Chinese tea in the English market has been ascribed to deterioration in the quality of the leaf, excessive admixture of dust, and the like. But it would seem probable that the deterioration is apparent rather than real—that it is owing to the improvement of the scientific methods adopted in India, while those in China have been in vogue for centuries. The products of the highly organised plantation system of India, with its effective and rapid treatment by machinery, must naturally beat those of the small Chinese farmer, who cultivates an acre or so, and sells the leaf to an itinerant purchaser, who keeps it till he has collected enough to make it worth his while to fire it, when it has lost much of its flavour. In this connexion, however, it must not be forgotten that other causes will influence the market. In the United States the consumption of tea has in recent years materially decreased, whilst that of coffee has undergone an almost corresponding increase.

REFUSAL OF THE BELGIAN GOVERNMENT TO LICENSE FOREIGNERS TO PRACTISE.

IT having been rumoured in Belgian professional circles that the Government were about to give licences to practise to a considerable number of foreign medical men without subjecting them to any examination, the Belgian Medical Federation asked Dr. Thiriar, the well-known Brussels surgeon, who is also a member of Parliament, to communicate with the Minister of the Interior and of Public Instruction, M. de Volder, on the subject. To this communication a reply was received, stating that he had made up his mind to abstain entirely in future from giving authorisations to practise to foreign medical men. A Bill is now before the Chambers dealing with this and other medical matters, and when this is passed it is probable that the power to give licences to practise will no longer remain with the Minister of the day.

TOXICITY OF PULMONARY EXHALATIONS.

DOES the surface lining of the lungs give off a toxic substance like the general run of glandular surfaces? MM. Brown-Séquard and d'Arsonval reply to this question in the affirmative and as the result of direct experiments performed on rabbits. If a certain quantity of water be injected into the lungs of an animal and then be immediately withdrawn, and after filtration injected into another animal, phenomena of poisoning are observed. A considerable diminution in the breathing is the chief observation, and this is attended with dilatation of the pupils. The animal died in seven hours. At the necropsy cerebral anæmia was noted, and serous effusion into the ventricles and at the base of the brain. There were no signs of embolism; the heart was contracted and the cavities on both sides contained black blood; the blood was red in the inferior vena cava, but black in the superior. Expired air contains something more than gas and water—a fact which needs in itself no further attestation than that supplied by the olfactory sense.

OCULAR SYMPTOMS OF EPILEPSY.

THE examination of a thousand cases of epilepsy by Dr. Gowers revealed but one morbid condition of frequent occurrence in the ocular fundus, and that was an unnatural equality of the size of the arteries and veins of the retina. Dr. Charles Oliver of Philadelphia has frequently observed a reduction of the visual fields for form and colour, a granular condition of the choroid in the macular region, a dirty red-grey degeneration of the optic nerve, and a thickening of the fibrous tissue of the retina.

THE PUBLIC VACCINATOR FOR CARDIFF.

THE public vaccinator for Cardiff has been deprived of his appointment on grounds which cannot be clearly understood from the account given in a local journal of the proceedings of the Cardiff guardians. The Vaccination Committee had expressed their disapproval of the conduct of this officer, who on the recent occasion of an outbreak of small-pox at Pentyrch was applied to for a supply of lymph by the medical officer of health and public vaccinator for the Pentyrch district; but the nature of this conduct, which is thus severely dealt with, does not appear. The public

vaccinator for Cardiff has held this office for over ten years, and has, we believe, always received the grant of the Local Government Board. The circumstances therefore which could justify the termination of his contract ought to be proved to be sufficient to justify so grave a step, and we hold very strongly should be made the subject of inquiry.

KING'S COLLEGE.

THE death of Professor Bloxam has caused the following changes to be made in the Chemical Department:—J. M. Thomson, F.R.S.E., has been appointed Professor of Chemistry; G. S. Johnson, F.C.S., has become Senior Demonstrator, and H. Jackson, F.C.S., Junior Demonstrator. In the Hospital, Mr. Ashley Gibbings, M.R.C.S., L.D.S., has been appointed Professor of Dental Surgery and Dental Surgeon, in place of Mr. Hamilton Cartwright.

MENINGEAL HÆMORRHAGE.

A FEMALE patient, aged twenty-six, was admitted under the care of Mr. Croft, in St. Thomas's Hospital, about midnight on Dec. 11th, in a semi-comatose condition. She was supposed to have been knocked down and kicked by a horse. There was a scalp wound, not leading down to bone, behind and below the left parietal eminence. There was no evidence of fracture. During the night she passed into a state of absolute coma, and in the morning had complete paralysis of the right arm and leg, but not of the face. Mr. Croft trephined in the situation of the wound, removing about two ounces and a half of somewhat granular clot, which was spread out for some distance between the dura mater and the bone. The hæmorrhage was from some vessels in the dura mater (probably posterior branches of the middle meningeal), and could only be arrested by means of pressure. About six hours later the power of movement returned in the right side, and her condition gradually improved. She spoke for the first time after the injury on the 13th. Although not yet recovered, she is still restless at times, and impatient of control; there is no paralysis, the wound is quite aseptic and healing, and the improvement continuous. A severe contusion of the groin was, however, followed by sloughing and cellulitis, for which incisions were required.

THE SANITARY STATE OF SHIRLEY.

AT a lengthened meeting of the Croydon Corporation the question of the ventilation of the Shirley sewers was again discussed. It was announced that the high shaft ventilators which have been so long in coming may be expected to be in position within about a week; but on behalf of the Shirley people it was contended that this did not satisfy them. Their demand is that the existing ventilators on the road level shall be closed, and that the high shafts shall alone serve as ventilators. On the other hand, it was pressed that since the Local Government Board had only recommended that the high shaft ventilators should serve as an additional means of ventilation, the experiment of the duplicate system ought at least to be tried for a time. This proposal was much opposed by those who professed to represent the wishes of the inhabitants of the hamlet of Shirley, but in the end a large majority decided that the road man-holes should remain open.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Dr. Mehu of Madrid, author of several important works on Pharmaceutical Chemistry.—Dr. Enrique Madrazo, editor of *El Correo Médico Castellano*.—Dr. V. V. Glovachevski of Irkutsk, well known for his writings on Diseases of Children.

H.I.H. THE CROWN PRINCE OF GERMANY.

THE latest intelligence concerning the condition of H.I.H. the Crown Prince is of a satisfactory character. At the end of last week, as we learn from San Remo, a small nodule became evident in the middle of the left ventricular band, which was slightly swollen throughout. This excrescence increased, and was then about the size of a split pea. It was not strictly defined, but its base passed insensibly into the surrounding tissues. It looked more like a "false excrescence," such as Mackenzie has described in his work on "Growths in the Larynx," than a true growth. The former growth (of end of October) was considerably smaller, and had a cicatrix on its surface. There was no œdema. The submaxillary glands were absolutely normal in size, and the general health was perfect.

THE GASTRIC JUICE AFFECTED BY SLEEP.

DR. P. V. BURJINSKI, of Professor Manassein's Clinic in St. Petersburg, having enlisted the services in the cause of science of some students and other persons who managed to overcome the natural repugnance most people feel to the passage of even a soft œsophageal tube, has made some investigations on the effect of sleep upon the acidity of the gastric juice. He estimated this acidity by means of a standard solution of soda, and he tested it also for hydrochloric acid. The best test for the latter he found to be floroglucin-vanillin. As, however, this cannot be used when there is any yellow colour in the fluid to be tested, the subjects of the experiments were fed on the whites of eggs, all the yolks being carefully put aside. The result of numerous tests showed that during the night the gastric juice is less acid than during the day. Care was of course taken that the conditions regarding food were the same during the night as during the day. Dr. Burjinski also found that the amount of acidity varied directly with the amount of hydrochloric acid present.

NUISANCE FROM METROPOLITAN REFUSE.

IN a special report on the storage, collection, and conveyance of offensive substances through the streets, Dr. Dudfield points out a very prominent evil in London administration. The refuse of dustbins is conveyed through the streets in open vehicles in such a way as to allow it to blow about in people's faces; and bones, skins, and other decomposing materials are similarly carted about with the result of producing offensiveness and nuisance. Any small country town can make bye-laws to regulate such matters by adopting the model clauses issued by the Local Government Board dealing with the prevention of nuisances arising from filth, dust, ashes, rubbish, &c., but London appears as yet to be unable to control the evil. As Dr. Dudfield well puts it, all refuse matters, whether the result of trades or of ordinary housekeeping, should be stored in impermeable covered receptacles and removed frequently, and without nuisance or annoyance, in properly constructed covered vehicles.

QUININE v. OPIUM.

MR. JOHN FERGUSON, a resident of Ceylon, has drawn attention to the wide-spread use of opium in malarial districts, and he ascribes the opium craving in such places to a low type of fever. He believes that sulphate of quinine, and even the other alkaloids from cinchona bark, counteract the ill effects resulting, and his suggestion is that quinine removes the craving and acts as a substitute for laudanum. This explanation is obviously insufficient. Quinine evidently combats the malarial influence, and thus removes the low state of depression which favours the opium habit, into which the unfortunate people gradually glide in the attempt

to forget their physical condition. In this way only does it appear probable that quinine acts in superseding the need for opium, its action being tonic and prophylactic rather than antidotal. Mr. Ferguson usefully points out that the retail prices have not fallen proportionally to the great reduction in the wholesale prices.

TETANUS.

ACCORDING to MM. Nocard and Brieger, tetanus is a disease transmitted to men and animals by the agency of a pathogenic organism which infects wounds or other suitable soils on the surface of the body. The organism does not penetrate far beyond the limits of its point of inoculation, but exercises its deleterious influence by means of certain products of an alkaloidal nature, and of which there are, according to Brieger, four kinds—tetanin, tetano-toxine, spasmo-toxine, and another not named. The alkaloids have a special affinity for certain parts of the motor nervous system, causing excessive discharges of nervous energy, on which the muscular spasms are directly dependent. M. Nocard found that dried blood and pus scraped from instruments which had been used to geld horses (all of which died of tetanus), when inoculated beneath the skin of rabbits and guinea-pigs, caused tetanus; and yet infusions made from the medulla oblongata and spinal cord of animals dead from tetanus were not capable of causing tetanus in other animals into whom some of the infusion was injected. The argument is not free from fallacy, but the conclusion drawn is that the spinal cord and medulla are acted upon by a strychnine-like substance, of course incapable of cultivation, but derived from the multiplication and growth of organisms elsewhere existing.

MENTAL DISORDER CAUSED BY JABORANDI.

DR. WAUZH of Liège, who has great belief in the efficacy of jaborandi as a stimulant of the mammary functions, mentions a case which has recently occurred in his practice, showing that inconveniences may occasionally arise from the administration of this drug. He prescribed ten drops of the fluid extract every four hours for a patient whose milk had ceased for a fortnight, with satisfactory results, the secretion being re-established. After a time, however, the patient began to suffer from extreme nervous excitement, accompanied by a fixed idea that she should murder all her family with a hatchet. On the jaborandi being stopped these alarming symptoms disappeared, and together with them the activity of the mammary glands.

FOREIGN UNIVERSITY INTELLIGENCE.

Buda-Pesth.—The names mentioned for the Chair of Special Pathology and Therapeutics are very numerous, the best known being Dr. Jendrassik, *docent* in the University, and Professor Bókai of Clausenburg.

Marburg.—Professor Braun of Jena has been appointed to the Professorship of Surgery. He will commence his duties after Easter.

Würzburg.—Professor Scanzoni, the well-known obstetrician, is about to retire on a pension at the age of sixty-seven.

AMONG those who were ordained Priest by the Bishop of Rochester on Sunday last occurs the name of the Rev. J. E. Hine, B.A. Oxon. and M.D. Lond., formerly Fellowes Gold Medallist and Atchison Scholar of University College Hospital, and late house-surgeon of the Radcliffe Infirmary, Oxford. We understand that Dr. Hine intends before long to join the University's mission to Central Africa as a medical missionary under Bishop Smithies.

SAVE on the occurrence of exceptional floods, the variations in the character of the river water supplied to London are, for the most part, very limited in range. Within the range, however, some variation usually makes itself manifest with the approach of the month of November, and accordingly, as appears from Messrs. Crookes, Odling, and Tidy's report, a slight variation in the composition and character of the water, as prevailing with great uniformity during the previous four months, was recognisable in last month's supply. Thus the mean proportion of organic carbon in the Thames-derived supply was found to be ·145 part, with a maximum in any one sample examined of ·166 part in 100,000 parts of the water, as against a mean of ·137 part and a maximum of ·169 part in the preceding four months' supply—the variation, it is observable, being very insignificant.

THE death is announced of Professor Balfour Stewart, M.A., LL.D., F.R.S. The deceased, who had only just completed his fifty-ninth year, was educated at the Universities of St. Andrews and Edinburgh. In 1859 he was appointed to the directorship of the Kew Observatory, and in 1867 to the secretaryship of the Meteorological Committee, which last appointment he resigned on his promotion to the professor's chair of Natural Philosophy in Owens College in 1870, a post which he held until his death. In 1868 he was awarded the Rumford Medal by the Royal Society, for his discovery of the law of equality between the absorptive and radiative powers of bodies.

IN the list of successful candidates at the recent examination for the degree of M.D. at the London University appears the name of Mr. K. N. Bahdurji, a Parsi gentleman of Bombay. He is the first Parsi to gain this degree, and the second native of India, the first being the late Dr. Chukerbutty, who passed in 1845.

PROFESSOR WILLIAM ROBERTSON, the Principal of the Royal Veterinary College at Camden Town, expired suddenly a few days ago whilst correcting proofs of a work he had written on Veterinary Surgery. The deceased was fifty-seven years of age.

SENOR CALLEJA, the Spanish Director of Public Instruction having retired, this important post has been filled by the appointment of Señor Nieto, son of Señor Nieto Serrano, Director of *El Siglo Médico*, the leading Spanish medical journal.

AT a meeting of the committee for the election of officers on the 19th inst., Dr. Arthur Gamgee, F.R.C.P. Edin., F.R.S., was elected an assistant physician, and Mr. George R. Turner, F.R.C.S., an assistant surgeon to St. George's Hospital.

THE Lettsomian Lectures will be delivered at the Medical Society of London by Mr. Reginald Harrison, on Jan. 2nd, 16th, and 30th, 1888. The subject will be "On some Points in the Surgery of the Urinary Organs."

DR. PESET CERVERA and Dr. Tuñon y Lara have been appointed Directors of the Laboratories of Forensic Medicine in Madrid and Barcelona respectively.

HOSPITAL SATURDAY FUND.—The report of the Distribution Committee of this fund was adopted at a meeting of the delegates held at the board-room on Wednesday last, which recommends that £10,000 of the £11,300 collected be distributed among 76 hospitals, 39 dispensaries, and 23 convalescent homes and other institutions. The awards to the hospitals amount to £6868 1*s.* 2*d.*, the dispensaries receive £853 6*s.*, and the convalescent homes £1340 10*s.*

Pharmacology and Therapeutics.

HYPODERMIC INJECTIONS OF ANTIPYRIN.

Two papers have just appeared on the value of subcutaneous injections of antipyrin for the relief of pain, as recommended by Professor Germain Sée—one by Dr. Hirsch of Hanover, the other by Dr. Capitan of Paris. Dr. Hirsch uses a solution made of equal weights of antipyrin and distilled water—(i.e., a 50 per cent. solution by weight). Of this he injects a Pravaz-syringeful (fifteen minims) into the painful spot, and in this way he has obtained most marked success in cases of neuralgia of the fifth, sciatica, and both muscular and articular rheumatism, some of them of long standing. In some instances the relief was both instantaneous and permanent. He advises that the syringe should after use be very carefully washed out with a 5 per cent. carbolic solution in order to prevent the lumen of the needle being stopped up by particles of antipyrin. Dr. Capitan, whose valuable paper in the *Bulletin Médical* is partly a *résumé* of the previous observations of various physicians, including a good deal of matter contained in a graduation thesis by Dr. Caravias, states that the solution of antipyrin in its own weight of water, though it may be used hypodermically, is painful, and he therefore adds fifteen parts of cocaine for every 1000 parts of antipyrin. With this solution the injection is much less painful than when no cocaine is added. The place where the needle has penetrated usually becomes slightly raised and tender, and once or twice small abscesses have formed. The usual dose employed by him is thirty minims. In dysmenorrhœa, and uterine pain generally, an enema (which is to be retained by the patient) of warm water containing seventy-five grains of antipyrin gives the best results. The action of this drug in relieving pain of very diverse kinds of origin—e.g., neuralgic, rheumatic, herpetic, &c.,—whether given by the mouth, by the bowel, or hypodermically, is very strongly praised by Dr. Capitan, who suggests that every medical man can easily verify its remarkable anodyne power by a few simple trials. The doses he recommends are somewhat higher than those frequently given; thus he puts the dose for internal use at from thirty to ninety grains, and that for hypodermic use at from fifteen to sixty grains.

STROPHANTHUS.

Some practitioners have looked with displeasure on strophanthus—the remedy so much vaunted of late as of value in heart disease. It can hardly be that the valvular lesions in different cases required a different remedy to act upon the heart muscle, unless, indeed, our present physiology is altogether wrong, and the doubt therefore arises whether the strophanthus itself is free from blame. Some false varieties of strophanthus are said to have been put upon the market, and some of the genuine strophanthus hispidus has been deteriorated by decomposition and by invasion with fungus, or immature seeds have been supplied. Such conditions must needs bring disrepute, and it behoves us to guard against them by obtaining the drug from perfectly reliable sources. Dr. John Aulde, of Philadelphia, has a paper in the *Medical and Surgical Reporter*, No. 2, vol. lvii., in which he speaks of the value of strophanthus not only as a cardiac tonic, but also as a direct diuretic, by increasing the activity of the vascular system. In cases of fever where there is great tension, with a hot and dry skin, scanty and high-coloured urine, he remarks, with truth, it is surprising how quickly we observe the diuretic action of a small dose of aconite frequently repeated. Aconite is regarded not only as increasing the secretion of the watery parts of the urine, but also of the solid parts. But while aconite reduces, digitalis increases tension, showing that strophanthus may be substituted for digitalis as a diuretic when it is desired to avoid increased blood pressure. It is suggested that this effect may be explained by assuming that in such cases there is too much tension, and that, this condition being relieved, compensation is re-established when cellular activity begins. In ordinary cases of cardiac dilatation, or in those cases dependent on typhoid fever and pneumonia in which alcoholic stimulants are indicated, strophanthus is recommended; and also in patients in the later months of pregnancy who suffer from a flabby condition of the cardiac muscle along with œdema of the lower extremities. But Dr. Aulde would not say that the presence of albumen in the urine would not be a contra-indication to the use of strophanthus. He also thinks that the drug may be used in preventing collapse during the production of anæsthesia, and as a remedy to prevent the depressing effects following the use of chloral and bromide.

GUAIACOL AS A SUBSTITUTE FOR CREASOTE IN PHTHISIS.

DR. H. SAHLI of Berne, writing on the treatment of phthisis by creasote, remarks that creasote, by which is meant that prepared from the tar obtained by the destructive distillation of beech wood, is a complex substance, the constituents of which vary considerably in different samples, and that it is surely desirable to use for therapeutical purposes some simple substance of known composition. He finds that in the beech creasote, as prescribed in the Swiss Pharmacopœia, the largest constituent is guaiacol, the methyl-ether of pyro-catechin, $OH.C_6H_4OCH_3$, which constitutes from 60 to 90 per cent. of the whole, the rest being chiefly made up of creasol, the mono-methyl-ether of homo-pyro-catechin, $OH.C_6H_3[CH_3].OCH_3$. Guaiacol being the chief constituent of creasote, Dr. Sahli prescribed it in cases of phthisis, and found that it had an excellent effect in moderating the cough, making expectoration easier, frequently diminishing the secretion, and improving the patients' appetite and general condition. Some who were confined to bed and suffering from a considerable degree of pyrexia were unable to retain the medicine, and vomited it. In some cases, too, it brought on diarrhœa. On the whole, however, Dr. Sahli was well satisfied with the guaiacol as a substitute for creasote. It is a colourless highly refracting liquid, soluble in alcohol, ether, and fat oils, but only slightly so in water. The alcoholic solution gives with perchloride of iron an emerald-green colouration. The taste and odour of guaiacol are more agreeable than those of creasote. As solutions of guaiacol deposit resinous substances when exposed to light, they should be kept in coloured glass bottles. One or two parts of guaiacol may be dissolved in 180 parts of water and 20 of spirit. One or two teaspoonfuls of this may be ordered in a glass of water two or three times a day after meals, or the guaiacol may be dissolved in cod-liver oil, which almost completely disguises its smell. In this way larger doses can be taken than when the solution in water is prescribed. The price of guaiacol does not seem to be very much higher than that of creasote.

SENEGIN.

Polygala senega and Polygala boykinii—i.e., the northern and southern varieties of senega-root—contain, according to Dr. Joseph Atlass of Dorpat, about the same proportion of senegin which he found in one specimen of the former, amounting to 1·64 per cent. The other main active constituent, polygalic acid, however, though existing in appreciable quantity in the northern senega-root, especially after it has been kept for some time, is only to be found in traces in the Polygala boykinii. In examining the physiological action of senegin, he found that when introduced into the circulation it acted as a violent poison, causing death from asphyxia due to heart paralysis. No effect was produced when senegin was introduced into the stomach—partly, perhaps, because it was to some extent vomited, but mainly because it was not absorbed. In animals which cannot vomit, no toxic effect was observed. Of course the result might have been different if the gastric mucous membrane had been ulcerated or wounded. Again, the subcutaneous administration did not show the same toxic effects as its intravenous injection, but it produced violent local irritation. Dr. Atlass was unable to discover any therapeutic value in senegin.

UTERINE MYOMA TREATED WITH HYDRASTIS.

Dr. Schmidt of Prague has treated with remarkable success a case of long-standing myoma of the uterus, accompanied with copious hæmorrhage, by means of tincture of hydrastis canadensis. Twenty-five drops were given four times a day for three or four months. During this period the hæmorrhage stopped, the menstrual periods became normal, and the tumour decreased very markedly in size.

SAPONIN AND SAPOTOXIN.

Quillaya saponaria was recommended by Professor Kobert as a cheap and efficient substitute for senega, and has since been employed with good results by Goldschmidt, by Maslovski, chief of Professor Kuznets' clinic, and by Dr. Pachorukow of Dorpat. The last-named observer has just published some account of a principle named by Professor Kobert "sapotoxin,"

which is contained in quillaya, and also forms part of the preparation sold as saponin, which appears, according to Dr. Pachorukow, to be a mixture of this substance, which is of a toxic character, and of another, lactosin, which is harmless. Sapotoxin has a powerful action on the blood, destroying the red corpuscles and decomposing the oxyhæmoglobin, thus interfering with the absorption of oxygen and causing death by asphyxia.

QUEBRACHO IN SURGICAL PRACTICE.

Dr. Bordeaux of Brussels, who has used quebracho a good deal during the last year or two, speaks very highly of it as a topical application for wounds and burns. The liquid extract is the preparation employed, and it is painted with a brush over the wound like collodion. The slight pain it causes is very transient; it becomes hard in an hour's time, forming a brownish crust, which can only be loosened with the aid of hot water. This crust is quite sufficient protection, no dressing being required. It promotes healing by first intention, and greatly assists the process of granulation.

HYPODERMIC INJECTIONS OF CHLORIDE OF SODIUM IN COLLAPSE.

Dr. Rosenbusch, writing in a Polish journal, describes some cases of collapse from hæmatemesis and hæmoptysis in which hypodermic injections of chloride of sodium acted most satisfactorily.

MEDICAL DEGREES FOR LONDON STUDENTS: PETITION OF THE APOTHECARIES' SOCIETY.

THE following petition, praying to be heard by counsel, in reference to the petition of the Royal College of Physicians of London and the Royal College of Surgeons of England for Charter and to grant degrees, has been forwarded to the Privy Council.

To the Queen's Most Excellent Majesty in Council.

The humble petition of the Master Wardens and Society of the Art and Mystery of Apothecaries of the City of London, humbly sheweth as follows:—

1. A petition has been presented to your Majesty by the Royal College of Physicians of London and the Royal College of Surgeons of England praying for a Charter (hereinafter referred to as the "said Charter") incorporating an equal number of the Fellows or Members of each of the said two Colleges under the name or style of the Senate of Physicians and Surgeons, with power to grant to persons who have obtained qualifications for registration under the Medical Act from either or both of the said Colleges, and shall be otherwise properly qualified, degrees in Medicine and Surgery and with other powers.

2. Your petitioners humbly submit and allege that they, as well as the general public, will be injuriously affected by the granting of the said Charter as prayed, and they object thereto for the following among other reasons.

3. Your petitioners, now known by the name of the Master Wardens and Society of the Art and Mystery of Apothecaries of the City of London, are a corporation incorporated and empowered under letters patent bearing date the 6th day of December, in the 15th year of the reign of King James the First, by the name of "The Master Wardens and Society of the Art and Mystery of Apothecaries of the City of London," and further empowered by an Act of Parliament made and passed in the 55th year of the reign of King George the Third, intituled "An Act for better regulating the Practice of Apothecaries throughout England and Wales," and by an Act of Parliament made and passed in the session of the 37th and 38th years of your Majesty's reign, intituled "The Apothecaries Act Amendment Act, 1874."

4. Under the Medical Act made and passed in the session of the 21st and 22nd years of your Majesty's reign the licentiateship of your petitioners, as well as that of each of the said two Colleges, is a qualification entitling the holder thereof to have his name entered on the Medical Register directed to be kept by the said Act.

5. Under the provisions of the Medical Act made and passed in the session of the 49th and 50th years of your Majesty's reign respecting examinations for the qualifications entitling the holders thereof to have their names placed on the Medical Register the General Medical Council have, upon the application of your petitioners, appointed examiners to assist at the examinations held by your petitioners of candidates for their licentiateship. Your petitioners, with the assistance and under the direction of the assistant examiners appointed by the General Medical Council as aforesaid, hold such qualifying examinations, and no examinations for persons about to become general practitioners are held in higher or more deserved repute.

6. The licentiates of your petitioners number nearly 10,000, nearly the whole of whom practise both Medicine and Surgery. The fees payable in respect of the qualifying examination and diploma of your petitioners are considerably less than those payable in respect of the similar examination and diploma of either of the said Colleges.

7. The qualifying examination of your petitioners is as severe a test of proficiency in Medicine, Surgery, and Midwifery as the examination conducted by the said Colleges, but if the said Colleges are enabled to grant degrees to their members to the exclusion of the licentiates of your petitioners, such prestige would thereby attach to the said Colleges that the diploma of your petitioners would necessarily suffer in public estimation, and be regarded as of inferior value. If the difficulties and expenses now attending the acquisition of degrees in Medicine and Surgery be removed by empowering the said Colleges to confer such degrees, the public will expect all medical practitioners to possess a degree as well as a qualifying diploma, with the result that if the said Charter be granted as prayed, not only your petitioners, but the public also will be injuriously affected; many persons who under existing circumstances would become candidates for your petitioners' diploma will feel compelled to be candidates instead for a diploma of the said Colleges, so as to qualify as candidates for a degree, and others will be debarred by the heavy fees imposed by the said Colleges from becoming medical practitioners.

8. Your petitioners humbly submit that it would be most unfair and unjust to their licentiates that they should be debarred from acquiring degrees in Medicine or Surgery which are open to members of the said Colleges. The curriculum passed through by the licentiates of your petitioners in no way differs from that passed through by the members of the said Colleges; they attend at the same schools and hospitals, and comply with the same conditions; and the examination for the diploma of your petitioners is as complete and satisfactory a test of proficiency as the examination of the said Colleges for a qualification for registration under the Medical Acts. Your petitioners therefore submit that no rights and privileges such as those prayed should be granted to the members of the said Colleges which are not at the same time granted to the licentiates of your petitioners. Your petitioners submit that if a Charter be granted by your Majesty to the said Colleges, it should provide that all licentiates of your petitioners should be eligible for degrees of the said Senate upon the same terms and conditions as members of the said Colleges, and that the examination held by your petitioners for their diploma should be an equal qualification for such degrees and the examinations therefor with the examination of the said Colleges for qualifications for registration under the Medical Acts.

9. Your petitioners submit that no new University for the conferring of degrees in Medicine and Surgery is required in London, as the University of London already satisfactorily and fully performs all the functions of such a university. If the said Charter is granted in the form prayed, which does not provide of necessity that candidates for degrees shall be required to pass any examination beyond the examination of the said Colleges for qualifications for registration under the Medical Acts, there will be constant danger that the said Colleges, in order to attract candidates, will require a low standard of proficiency from the candidates for their degrees, whereby the value of and prestige attaching to a degree will be diminished and lowered.

10. Your petitioners humbly submit that the said Charter is unnecessary, that as prayed it would unjustly exclude and prejudice the position of your petitioners, deal a most severe blow to the rights and interests of a body who are universally allowed to be fulfilling their public duties in a most satisfactory manner, as secured by existing Charter and Acts of Parliament, and most injuriously affect the medical profession and the public.

Your petitioners therefore humbly pray that your Majesty will not accede to the prayer of the petition of the said two Colleges except upon the condition that the said Charter provides that special examinations for degrees shall be compulsory, and that all the licentiates of your petitioners shall be at liberty to present themselves at such examinations, and that the diploma of your petitioners shall be deemed a qualification for candidates at such examinations as full and complete as any qualification for registration under the Medical Acts granted by one or both of the said Colleges; and that any licentiate of your petitioners shall be entitled to receive a degree from the said Senate upon the same terms and conditions as a person who holds a qualification for registration under the Medical Acts granted by one or both of the said Colleges. And your petitioners also pray that, upon the consideration by your Majesty in Council of the said petition of the said two Colleges, your petitioners may be at liberty to attend and be heard by counsel. And your petitioners will ever pray, &c.

*** We are informed that the Society of Apothecaries are taking active steps, if the petition of the Royal Colleges to the Privy Council should be persevered with in its present form, to obtain the assent of the licentiates to the petition presented by the Society, and also to convene a meeting of the licentiates at their Hall for the like purpose at an early date in January.

ATTEMPTED EXTORTION FROM A MEDICAL PRACTITIONER.

A TRIAL of some importance to members of the medical profession took place on the 17th inst., at the Old Bailey, before the Common Serjeant. George Wetherall was charged with, and found guilty of sending a letter to Mr. A. Gittings, of Kilmarsh-road, Hammersmith, demanding £20 on condition that a charge of indecent assault which the defendant made against Mr. Gittings should not be proceeded with. The facts of the case are briefly these:—

On the 10th of September last defendant's servant, Laura Power, a girl of fourteen, called at Mr. Gittings' surgery for medicine he had prescribed for Wetherall's child. Mr. Gittings noticed that she looked ill, and learnt from her that she had been ailing for a few days with headache and had a pain in the abdomen: her tongue was coated, pulse quick, and skin hot. Suspecting typhoid fever, he, with the girl's consent, palpated the abdomen, and satisfied himself that she was suffering from constipation. He prescribed for her, and told her to see him again in a few days;

but neglected to acquaint her employers of the facts. About three weeks after, Mr. Gittings was summoned at midnight to attend Wetherall for an attack of pleurisy, the girl being sent to fetch him. Mr. Gittings, who had gone to bed, came down and admitted the girl, directing her to wait till he was ready. He attended the defendant for a week, when, on calling at the latter's house, he found that he had gone out with his wife. On being told this by Power, Mr. Gittings stated that he said to her, "Then you are all alone," when she replied, "No, there is a lady upstairs lodging here." This person, Mrs. Mason, was, as will be seen, a material witness for the defence. The same evening Mr. Gittings received a letter from Wetherall, requesting him not to call again until he (the defendant) had consulted his legal adviser concerning something which had come to his knowledge respecting Mr. Gittings' conduct. This letter Mr. Gittings destroyed, and called next day for an explanation. He was then confronted with the charge that he had been guilty of indecently assaulting Laura Power, a charge he indignantly repudiated, as also a proposal made by Wetherall that he should pay him £25 to say no more about it. However, he agreed to meet the defendant upon another occasion, some days later, when Wetherall demanded £20, which was refused, Mr. Gittings, on his part, insisting that the charge should be unconditionally withdrawn. Wetherall then wrote a letter in which this demand was repeated, otherwise he should take proceedings, and the letter began with words to the effect that the writer was unable to accept his (Mr. Gittings') offer—an offer which Mr. Gittings swore had never been made, but which defendant's counsel, Mr. Kisch, interpreted as being an offer of £10. Mr. Gittings then placed the letter in his solicitor's hands, and proceedings were instituted against Wetherall at the Hammersmith police-court, and the case was sent for trial. Mr. Kisch subjected Mr. Gittings to a prolonged and severe cross-examination without succeeding in shaking his evidence in any material point. For the defence, Laura Power deposed that she had been indecently assaulted by Mr. Gittings, not only on Sept. 10th (when she said she was not ill, but admitted on cross-examination to having a pain in her stomach, and to being constipated), but on every occasion that she saw him subsequently, including that day on which she had been sent to fetch him for her master. She also stated that when Mr. Gittings called at Wetherall's house and found him out he kissed her; and Mrs. Mason swore to witnessing this act (which was said to have taken place in the hall) from the landing near her apartments on the second floor. Mrs. Mason further stated that she at once taxed the girl with the familiarity, and obtained from her a confession of the various assaults. This was communicated to Wetherall, who acted as stated. Several witnesses were called to give the defendant a high character. The defence was that Mr. Gittings had been guilty of indecent assault, and that he had offered Wetherall £10 before the letter was written. On behalf of the prosecutor, Mr. Grain pointed to the improbability of the story told by the girl, and the undisputed fact of the threat contained in the letter. In summing up, the judge showed how easily such a charge could be brought against a medical man, and that it would be easy to explain Mrs. Mason's evidence on the ground of imagination, and the girl's confession on her misinterpretation of the examination made by Mr. Gittings on September 10th. It was not until after Wetherall had himself been charged that, at his instance, Power applied for a summons against Mr. Gittings, which the magistrate declined to grant. The jury found the defendant guilty, but recommended him to mercy on account of the weak state of his health and his previous good character. The prosecutor joined in the recommendation of the jury, and the Common Serjeant ordered the defendant to find one surety in £100, and to enter into his own recognisances to come up for judgment when called upon. Whether such a result will act as a deterrent is perhaps open to question, and Mr. Gittings may have erred on the side of mercy in not pressing for the infliction of some punishment; but he knew the man's state of health, and on that ground concurred in the recommendation. At any rate, Mr. Gittings deserves credit for bringing the case into Court, and indeed for resisting what to a professional man must always be a great temptation—the payment of a sum of money to save his reputation from being ruined by a false and baseless charge. We understand that Mr. Gittings incurred heavy legal costs in the action before the case was taken up by the Treasury

MEDICAL TRIAL.

HIGH COURT OF JUSTICE: CHANCERY DIVISION.

(Before Mr. JUSTICE KAY.)

WILLIAMS *versus* HODGE AND CO.

THIS was a motion on behalf of the plaintiff, Dr. John Williams, the well-known obstetric physician, of 11, Queen Anne-street, for an injunction to restrain the defendants, Messrs. Hodge and Co., surgical instrument makers, of Oxford-street, from using, in their trade catalogue, the name of the plaintiff in connexion with a certain instrument of a simple character commonly used in obstetric operations, so as to lead the public to believe that it was the plaintiff's invention. On the use of his name coming to the plaintiff's knowledge, he remonstrated with the defendants, but they refused to expunge his name from their catalogue. The defendants did not appear to the motion.

Mr. RENSHAW, Q.C. (with whom was Mr. Rolls Warrington) read an affidavit by the plaintiff to the effect that it was contrary to the etiquette of the medical profession for a practitioner to advertise himself or to hold himself out to the public as an inventor, and that if he did so he injured himself in the eyes of his fellow-practitioners; and that this attempt to connect the plaintiff's name with an instrument of so simple a character as that in question would tend not only to injure him, but also to render him an object of ridicule in the profession. The plaintiff was supported by an affidavit by Sir William Jenner to the same effect.

Mr. Justice KAY.—This case seems like "Clark *v.* Freeman" (11 Beav., 112), where the Court refused to grant an injunction to prevent a chemist from selling a pill under a false and colourable representation that it was a medicine of the plaintiff, the eminent physician, Sir James Clark. That decision was no doubt a surprise to the profession; but has it ever been overruled?

Mr. RENSHAW.—It has certainly not been accepted as sound. The defendants' untrue representations are calculated to injure the plaintiff in his business, and thus the case falls within "Thorley's Cattle Food Company *v.* Massam" (14 Ch., Div. 763) and that class of cases.

Mr. Justice KAY.—That is a question for the trial. I cannot decide it on an interlocutory application. This is a simple instrument and perfectly harmless; but in "Clark *v.* Freeman" the pill advertised by the defendant was one of a dangerous kind, which the eminent physician who was the plaintiff would never have thought of prescribing.

Mr. RENSHAW.—That case is not considered to be law now.

Mr. Justice KAY.—That is a question for the trial. Supposing the name of some eminent surgeon were attached to a particular instrument, everyone would know that the name was not so used by that surgeon, but by some unscrupulous manfacturer.

Mr. RENSHAW.—I submit that in such a case the wrongful use of the name ought to be restrained. It is, in fact, libellous. In "Hill *v.* Hart Davies" (21 Ch., Div. 798) your lordship granted an injunction to restrain a libel likely to injure a friendly society.

Mr. Justice KAY, in delivering judgment, said that in this case there seemed to have been, according to the evidence, a most unwarrantable use of the name of a gentleman of great eminence in the medical profession by associating it with a particular instrument. That gentleman now asked for an injunction to restrain that use of his name. Had the matter been *res nova*, his lordship should have said that he was certainly entitled to an injunction. A gentleman in the plaintiff's position might reasonably ask, "Why should my name be taken in vain by an unscrupulous manufacturer of surgical instruments?" The defendants had no more right to use the name of this eminent medical man than to take his purse—so his lordship should have said upon his own unassisted judgment if the case had come before him for decision for the first time. But there was the case of "Clark *v.* Freeman," in which the name of Sir James Clark, one of the most eminent physicians of his day, was used by the defendant, a chemist, in connexion with a pill which Sir James had never heard of, and which he would never have dreamt of telling his patients to take. There Lord Langdale refused to grant the injunction asked for. As his lordship had said, that decision was rather a surprising one, and one which he had always thought was not sufficiently considered; but it was a decision from which he did

not feel himself at liberty to depart, and from which, upon an interlocutory application such as the present, he had no right to depart. His lordship was not at present aware of any reported case in which "Clark *v.* Freeman" had been considered, or of any case overruling it. Accordingly, the question raised by this motion must stand over until the trial of the action, if the defendants were foolish enough to allow it to be brought on. His lordship thought it right to add that he could not conceive that anyone in the world would suppose this gentleman's professional name would be in the least damaged by this most unscrupulous use of it.—*The Times.*

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5620 births and 3919 deaths were registered during the week ending December 17th. The annual rate of mortality in these towns, which had been 23·5, 22·5, and 21·1 per 1000 in the preceding three weeks, rose again last week to 22·1. During the first eleven weeks of the current quarter the death-rate in these towns averaged 20·8 per 1000, and was 0·7 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 15·5 in Portsmouth, 16·8 in Brighton, 17·4 in Norwich, and 17·6 in Plymouth. The rates in the other towns ranged upwards to 30·3 in Wolverhampton, 32·9 in Manchester, and 35·7 in Blackburn and in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 443 and 448 in the preceding two weeks, further rose last week to 500; they included 157 from whooping-cough, 108 from scarlet fever, 80 from measles, 54 from "fever" (principally enteric), 47 from diphtheria, 35 from diarrhœa, and 19 from small-pox. These zymotic diseases caused the lowest death-rates last week in Sunderland and Brighton, and the highest rates in Oldham, Blackburn, and Preston. The greatest mortality from whooping-cough occurred in Manchester, Oldham, Leicester, and Wolverhampton; from scarlet fever in Manchester, Salford, Oldham, Norwich, and Preston; from measles in Nottingham, Bolton, Birmingham, Blackburn, and Derby; and from "fever" in Blackburn, Nottingham, and Preston. The 47 deaths from diphtheria in the twenty-eight towns included 23 in London, 5 in Liverpool, 3 in Oldham, 3 in Newcastle-upon-Tyne, 2 in Bristol, 2 in Preston, and 2 in Huddersfield. Small-pox caused 17 deaths in Sheffield, 1 in Bristol, and 1 in Preston, but not one in London or in any of the twenty-four other large provincial towns. The metropolitan hospitals receiving cases of small-pox contained 10 patients on Saturday last, corresponding with the number on the previous Saturday. The number of scarlet fever cases in the Metropolitan Asylum Board hospitals and in the London Fever Hospital at the end of the week was 2498, against 2726 and 2667 on the previous two Saturdays; the cases admitted also showed a further considerable decline from the numbers in recent weeks. The deaths referred to diseases of the respiratory organs in London, which had been 560, 455, and 408 in the preceding three weeks, were last week 413 and 129 below the corrected average. The causes of 101, or 2·5 per cent., of the 3919 deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Brighton, Preston, and in three other smaller towns. The largest proportions of uncertified deaths were recorded in Hull, Sheffield, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 25·0 and 22·7 per 1000 in the preceding two weeks, was 23·0 in the week ending Dec. 17th; this rate exceeded by 0·9 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 16·4 and 16·5 in Greenock and Leith, to 24·9 in Glasgow, 27·0 in Dundee, and 35·0 in Paisley. The 574 deaths in the eight towns showed an increase of 7 upon the number in the previous week, and included 26 which were referred to whooping-cough, 15 to measles, 9 to scarlet fever, 9 to "fever" (typhus, enteric, or simple), 9 to diarrhœa, 7 to diphtheria, and not one to small-pox; in all, 75 deaths resulted from these principal zymotic diseases, against 77 and 79 in the preceding two weeks. These 75 deaths were equal to an annual rate of 3·0 per 1000, and exceeded by 0·2 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 28 and 29 in the preceding two weeks, declined last week to 26, of which 14 occurred in Glasgow, 4 in Aberdeen, 3 in Edinburgh, and 3 in Paisley. The deaths from measles, which had increased in the preceding four weeks from 8 to 14, further rose last week to 15, and included 5 in Edinburgh, 5 in Dundee, and 3 in Leith. The 9 fatal cases of scarlet fever showed a decline of 5 from the number in the previous week, 4 being returned in Glasgow, 2 in Edinburgh, and 2 in Dundee. The 9 deaths referred to "fever," on the other hand, showed an increase upon the low numbers in recent weeks, and included 3 in Glasgow, 3 in Paisley, and 2 in Edinburgh. The 9 deaths attributed to diarrhœa were below the average for the season; while the 7 fatal cases of diphtheria exceeded the numbers in recent weeks, and included 3 in Glasgow, 2 in Edinburgh, and 2 in Greenock. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 165 and 143 in the preceding two weeks, rose again last week to 163, but were 11 below the number returned in the corresponding week of last year. The causes of 65, or more than 11 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had increased in the preceding four weeks from 33·8 to 35·6 per 1000, further rose to 38·7 in the week ending December 17th. During the first eleven weeks of the current quarter the death-rate in the city averaged 31·7 per 1000, the mean rate during the same period being but 19·8 in London and 19·7 in Edinburgh. The 262 deaths in Dublin last week showed a further increase of 21 upon the numbers in recent weeks; they included 12 which resulted from scarlet fever, 5 from measles, 3 from whooping-cough, 2 from "fever" (typhus, enteric, or simple), 2 from diarrhœa, and not one either from small-pox or from diphtheria. Thus the deaths resulting from the principal zymotic diseases, which had been 31 in each of the previous two weeks, declined last week to 24; they were equal to an annual rate of 3·5 per 1000, the rate from the same diseases being 2·7 in London and 2·8 in Edinburgh. The fatal cases of scarlet fever, which had been 13 and 15 in the previous two weeks, declined last week to 12. The deaths last week from each of the other zymotic diseases also showed a decline from the numbers in the previous week. The deaths of infants corresponded with the number in the previous week, while those of elderly persons rose to 83 from 51 in the previous week. Three inquest cases and 3 deaths from violence were registered within the city; and 80, or nearly a third, of the deaths occurred in public institutions. The causes of 37, or 14 per cent., of the deaths in the week were not certified.

THE SERVICES.

WAR OFFICE.—Army Medical Staff: Brigade Surgeon Henry Carden Herbert, M.D., F.R.C.S.I., is granted retired pay, with the honorary rank of Deputy Surgeon-General, ranking as Colonel (dated Dec. 21st, 1887).

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon Edward Jones Butler, B.A., M.D., has been placed on the retired list of his rank (dated Dec. 7th, 1887).

ARTILLERY VOLUNTEERS.—1st Fifeshire: Robert Balfour Graham, Gent., to be Acting Surgeon (dated Dec. 17th, 1887).

RIFLE VOLUNTEERS.—2nd Volunteer Battalion, the Worcestershire Regiment: Surgeon T. E. Underhill, from the 1st Volunteer Battalion, the South Staffordshire Regiment, to be Surgeon (dated Dec. 17th, 1887).—1st Dumbartonshire: Acting Surgeon A. Hay, M.D., resigns his appointment; also is permitted to retain his rank, and to continue to wear the uniform of the corps on his retirement (dated Dec. 21st, 1887).—2nd Volunteer Battalion, the Queen's Own (Royal West Kent Regiment): Ernest William White, M.B., to be Acting Surgeon (dated Dec. 21st, 1887).—18th Lancashire (Liverpool Irish): Acting Surgeon G. A. Raverty resigns his appointment

(dated Dec. 21st, 1887).—14th Middlesex (Inns of Court): Acting Surgeon T. W. C. Jones to be Surgeon (dated Dec. 21st, 1887).—1st Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry):—John Maurice Harper, Gent., to be Acting Surgeon (dated Dec. 21st, 1887).—1st Volunteer Battalion, the South Staffordshire Regiment: Surgeon H. H. Smith, from the 1st Volunteer Battalion, the Worcestershire Regiment, to be Surgeon (dated Dec. 21st, 1887).

Correspondence.

"Audi alteram partem."

SCARLET FEVER, SMALL-POX, AND COW-POX.

To the Editors of THE LANCET.

SIRS,—In your issue of Dec. 17th you give an abstract of Dr. Klein's paper, read at the Epidemiological Society, on "Some of the Infectious Diseases common to Man and the Lower Animals," and also an abstract of Professor Crookshank's investigation into the so-called Hendon cow-disease and its relation to scarlet fever in man. With your permission, I would like to make a few remarks on some of the points referred to in these papers, as they are of some importance.

The first is with regard to the relation of human variola and cow-pox. The popular notion in this country is that cow-pox is merely small-pox modified by its passage through the cow, and Dr. Klein brings forward this notion in support of his contention that the mysterious cow disease at Hendon was scarlatina, or, at any rate, produced that malady in people who partook of the milk of the affected cattle. Now, I have for years, in your columns and elsewhere, maintained that human variola and vaccinia are not the same disease, but are quite distinct, and cannot by any known means be transformed. I still maintain this, in the face of the assertions that Ceely, Badcock, and one or two others, have succeeded in converting small-pox into cow-pox; and if Dr. Klein relies upon these to establish his position with regard to an eruptive mammary disease of cows giving rise to scarlet fever in mankind, then I am afraid he stands upon very shaky ground. As Dr. Klein himself acknowledges, he utterly failed to effect the transformation of small-pox into cow-pox, even when acting under the direction of Mr. Ceely, and experimenting under the most favourable conditions on more than thirty milch cows and heifers. And I will make bold to say that if Dr. Klein carries on experiments all his life in this direction he will be unsuccessful, as have several continental commissions (not alone the French commission under Chauveau), and every individual—myself among the number,—except the three or four above mentioned. Clinically and anatomically they differ widely, and their points of similarity are few and trivial. All attempts to convert variola into vaccinia by inoculating cows with small-pox matter have failed—have failed in the hands of careful and most able experimentalists, and they will fail. But in this case we can resort to our heart's content to experiments upon our own species to prove whether the two maladies are due to one virus—a course which we can so seldom adopt with regard to other diseases. We can inoculate human beings with vaccine virus with the view of transforming vaccinia into variola, and if the latter is the former the results in every case should not be doubtful. Transferred to its original soil, the virus should be itself again, and produce small-pox with all its well-marked features. Since the days of Jenner countless millions of persons have been subjected to this experiment, if we may so designate every-day vaccination; and I ask if there is an instance on record in which vaccinia became variola? I certainly know of none. Surely it is as reasonable—if not more so—to attempt to convert vaccinia into variola as to transform the latter into cow-pox. Compare the ease with which vaccinia can be transmitted from calf to calf, from the latter to the child, and *vice versâ*, throughout endless generations, and without the slightest tendency to become variola, with the very few recorded cases of supposed production, experimentally, of the disease from small-pox virus, which was for ever changed by implantation in the body of the cow.

The virus of cow-pox and that of small-pox differs in no respect from the viruses of other contagious diseases in regard to preserving its specific potency. The viruses of anthrax, tuberculosis, glanders, rabies, scarlatina, measles, &c., will always produce none other but these diseases, and if the symptoms produced by them when inoculated in other species of creatures than those to which they are native are somewhat different, yet when carried back to their original soil they are again the same in everything. I am quite astonished at the way medical men in this country have treated this question of identity of cow-pox and small-pox, and accepted the assertion as to this identity without resorting to proof.

With regard to the existence of scarlatina in cows, or a disease in them which will give rise to that malady in people through ingestion of milk, I am seriously inclined to doubt it. The disorders of cows have been closely studied of late years by veterinary surgeons, and nothing resembling scarlet fever has been observed. Scarlet fever in man, if derived from the cow, would also be that disorder in the bovine. I should not like to be considered dogmatic in the matter, but I think it will eventually be found that a mistake has been made as to this Hendon disease, and that Professor Crookshank is on the right track. We shall then have to express regret that such a panic should have been caused and such serious injury should have been done to a most important industry through over-anxiety and haste to protect the public from a dreaded scourge.

With regard to Professor Crookshank's statement that veterinary surgeons he inquired of informed him that the disease he saw affecting the cows' udders was very well known to them, but was not described in text-books of veterinary medicine, I may mention that in my work on "Veterinary Sanitary Science and Police," published twelve years ago, in the section on Variolous Disease in Animals, I particularly described cow-pox and the diseases of the udder with which it might be confounded. Cow-pox and horse-pox are not at all rare diseases.

I am, Sirs, yours truly,

GEORGE FLEMING,

Dec. 21st, 1887. Principal Veterinary Surgeon of the Army.

THE TREATMENT OF CANCER.

To the Editors of THE LANCET.

SIRS,—Mr. Jennings, in your number of the 17th, asks me to give him an answer to several questions: In what sense do I use the term "cure," and whether I believe Dr. Smith's case[1] was one of cure, with non-recurrence for nineteen years? I answer: I would accept a case of cancer as having been cured that fulfilled the following conditions: that after the removal of the cancer, by whatever mode of treatment adopted—remedies, external or internal,—there being also evidence of complete restoration to health, the patient remained without any reappearance of the disease throughout the remainder of life—throughout a life in which death ultimately took place from causes common to the break-down, from ordinary wear and tear, of natural structures. I cannot therefore accept Dr. A. F. Smith's case as a "cure," deeply valuable as it may be as an instance of prolonged immunity from recurrence, and confirming, in selected cases, the extreme value of the knife. In what sense do I speak of cancer "infiltrating textures around its origin"? Well, I always speak of a cancer as almost always infiltrating the part or tissue it attacks, the natural character of the structures being either absorbed or otherwise destroyed and replaced by new material. The clinical recognition of adjacent glandular contamination is surely so obvious that I may be pardoned for not offering on the present occasion any description of its features.

I am, Sirs, yours faithfully,

Birmingham, Dec. 20th, 1887. OLIVER PEMBERTON.

To the Editors of THE LANCET.

SIRS,—Like many others, I have tried Chian turpentine, and, though not regarding it as a specific, have still been very much impressed by its effects in two or three cases of undoubted cancer. An old lady, the subject of cancer of the cervix, took the turpentine for one or two months.

[1] THE LANCET, 1887, vol. II., p. 565.

The changes observed were these: The pain, which was at first excessive, was decidedly relieved; the discharge changed from a thin, grumous ichor, to a more or less profuse glairy blood-speckled discharge; but, to me, the most remarkable change seemed in the melting down, to a great extent, of the encephaloid swelling, first seen in and around the os uteri. That the disease was cancer I have no doubt, this also being the opinion of my friend Dr. Marriott of Leicester, to whom I had sent the case for consultation. The patient died, however, worn out at last by pain and general exhaustion, for, like many other cancer patients, she yielded to despair and gave up all treatment. From a vaso-motor point of view, the wonder would be if Chian turpentine had not some notable effect in cancer in any of the pelvic organs. We know that the turpentines have, or seem to have, an elective affinity for the abdominal and pelvic arterioles, and in small continued doses constrict these vessels, even to infarction of mucous tissue. It might be asked, If this is so, how comes it that the diseased portions are those only acted on? But when we consider that the arterioles supplying a cancroid mass must be constantly in a state of spasm (hence the pain) from the cancer poison, we need not wonder that a little more constriction, the result of the continued doses of Chian turpentine, will bring about that wasting and death of the cancerous mass so much desired by those treating this terrible malady. Chian turpentine, like all other turpentines, appears to have a decidedly constringing effect on the arterioles and capillary vessels of the pelvic mucous membranes, and acts in the presence of cancer—unfavourable cases of cancer—much as ergot does in some fibroid diseases of the uterus.

I am, Sirs, yours truly,

Rothwell, Northampton, Dec. 19th, 1887. JAMES MORE, M.D.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of the 19th ult. Professor Clay has recorded some additional cases of the successful treatment of cancer by Chian turpentine, and in a leading article contained in your issue of the 3rd inst. you have made some comments upon this subject. The following brief record of a case of well-marked epithelioma of the tongue, in which this treatment was adopted, may, especially as the subject is again brought under discussion, be considered worth publishing. Although the patient succumbed suddenly to causes other than the disease itself, the marked influence of the treatment in checking its onward progress, in improving its appearance, and in ameliorating its symptoms, was distinctly in favour of the medicine.

Mrs. S——, aged about sixty, consulted me on Dec. 31st, 1886, suffering from a painful indurated tumour on the side of the tongue, extending from near the root to within about two inches of the tip, and occupying nearly half of the transverse diameter, with jagged, sloughing ulceration running along the centre, having hard, raised, and everted edges. I could not trace it to any local source of irritation, unless a loose, rather sharp molar tooth might have so acted. It must have grown rapidly, as I had seen her the previous September, and she had then no symptom of the malady. Its extent, especially towards the pharynx, I considered precluded the idea of operation. Encouraged by the reports of success in some cases of treatment by Chian turpentine, I determined upon giving this a fair trial. I obtained the medicine, through Mr. Grose of this town, from Messrs. Southall. The disease had produced an evident effect on her general health and appearance. She suffered acute pain, which deprived her of rest; swallowing was very difficult, often impracticable, much of the food being rejected, partly through the nose, some before, some after, reaching the stomach; speech, of course, imperfect. After some other treatment, which I need not detail, the Chian turpentine was first given on Jan. 5th, 1887. After about a fortnight, I found there had been a want of regularity in its administration, although retained by the stomach better than most other things. After this it was persevered with regularly for about six weeks before there was any perceptible improvement, and I began to anticipate failure. Soon after this, however, there was some mitigation of pain, so that the morphia draughts she had been taking at night were less required and then discontinued; the diseased mass, which had been progressively increasing, appeared to be less active, and after a further period the surface presented a less malignant aspect, the ulcer appearing less deep and its edges less raised and everted. The improvement continued to be so marked, both as to the appearance of the local disease, the diminution of pain, and the power of swallowing and of speech (which had become nearly unintelligible), that I asked my friend Dr. Rawlings to see the case, so that I might have his evidence should it end in recovery. In the night of March 23rd the patient had an attack of syncope, from which she partially rallied, but relapsed, and died at an early hour in the morning. I then found that the nourishment which was ordered had, from causes which I need not here enter into, not been regularly given, and the patient sank, I believe, from exhaustion, no doubt partly induced by the disease, but chiefly from insufficient nourishment. My impression is that the disease would have subsided if strength had been sustained. The local applications used by Professor Clay were soon discontinued—the chromic acid on account of the pain induced. Unless, therefore, the check to the onward and otherwise, I believe, inevitable progress of the malady, and the obvious amendment which followed, were due to the influence of the medicine, I do not know to what to attribute them.

The question may be asked, Is it or is it not a fact that cases of marked and, as far as our present diagnostic powers can determine it, unmistakable cancer, especially epithelioma, have yielded to this treatment—such cases as, according to all experience, would, unless surgically removed, have otherwise gone on from bad to worse? The evidence we have compels us to answer this question in the affirmative. Failures cannot destroy the force and value of such experience. In none of the cases recently referred to is it stated how long the treatment was continued before it was given up as a failure.—I am, Sirs, yours truly,

Swansea, Dec. 10th, 1887. GEORGE PADLEY.

THE NOMENCLATURE OF PHYSICAL SIGNS.

To the Editors of THE LANCET.

SIRS,—In a recent discussion in your columns on the nature of a cardiac murmur, a side issue was raised in respect of the name best adapted to describe the bruit. On this point there was difference of opinion even among those who were agreed as to mode of origin, and the names auricular systolic, presystolic, and late diastolic were severally advanced as each best adapted to name one and the same phenomenon. For the choice of any one of these three names a reasonable cause may be shown, and it is a matter of very little moment whether, by common consent, preference should be given to one of these three names, or all three should persist in use—of little moment because each name is unambiguous, is readily understood. Far otherwise is it in respect of the nomenclature of physical signs in general; here serious confusion exists, and each returning year the teacher is confronted by a very difficult problem—to wit, what terms, from a very large vocabulary, he shall select as least likely to give rise to misunderstanding in the future. The problem is becoming an increasingly difficult one, for schools are multiplying, and text-books are multiplying, and Babel is imminent. The terminology current at one hospital is not that current at another, and in the attempt to reconcile the one with the other all finer distinctions are lost. It cannot be maintained that the question is not a vital one, or that with a little patience one can, as a rule, make out the drift of the description; such contention could have but one meaning—viz., that accurate definition was superfluous and delicacy of perception unessential; it would come also with very bad grace from a department of knowledge which claims to be both a science and an art. That I should take up this question in detail will not be necessary. All of us know of the present confusion; many have felt its inconvenience keenly. How much time is spent year after year by students in mastering or endeavouring to master the terminologies of their own particular schools! How great is the disappointment when it is discovered that the currency of each is a very limited one! To add to the misfortune, it is the earnest students who suffer, not the men who are content with "râles, don't ye know," for every sound, from a tracheal rattle down to—well, the finest sounds *they* are capable of recognising. Admitting, then, the need for reform, how may it be effected? Utopian as it may at first sound, I can only suggest that it should be settled in conference. The proposal sounds formidable, but I cannot think that it really is so formidable as it sounds, or

that it is Utopian to hold that people should ever come to agree on questions of this kind; were it, however, both the one and the other, the need appears to me so pressing that I should still feel compelled to urge the only method which can be successful. The first step towards any such conclusion would be that each school should agree upon its own teaching; the next that this teaching should be represented at a council of delegates. I believe that the proverb, "Il n'y a que le premier pas qui coûte," would prove true here; and this first step—surely it ought to be taken by each teaching body. That when all should be said and done there would remain moot points, one must of course expect; but of the multitude of terms chosen on no definite principle which we now possess, we might with advantage lose many—redundancy is a great defect of our present system. What do we want with bronchial breathing, tubular breathing, blowing breathing, tracheal breathing, &c.? And the râles—who shall name them? It is not for me to suggest a system, though I would venture to say just this much—that any nomenclature should, at all events in the first instance, be in outline rather than in detail. It is a true principle in art—be pure in your outline; the filling in is of secondary importance. Then the nomenclature should be, as far as possible, on one principle only; and, as far as possible, this principle should be descriptive, all terms implying a theory being avoided. Where possible, also, descriptive terms should be such that ready reference may be made to the analogue: e.g., a percussion sound is described as *osteal;* if asked what is meant, it will always be possible to reproduce the sound to the questioner. We should, lastly, endeavour to conform our terminology to the terminology in use in the physical sciences—always, however, to the exclusion of theory.

I do not, of course, suggest that a new language should be coined; indeed, I cannot help hoping that we should not have far to go to find a system ready to our hands which, with a modification here and there, would answer every purpose—I refer to Dr. Gee's book on "Auscultation and Percussion," for which I trust I may express the great admiration I feel.

I am, Sirs, your obedient servant,

Welbeck-street, Dec. 10th, 1887. HARRINGTON SAINSBURY.

HYDROPHOBIC VIRUS DESTROYER.

To the Editors of THE LANCET.

SIRS,—In view of the numbers of deaths there have been lately from hydrophobia, I have designed a "virus destroyer" as a preventive, which, if adopted, would go a long way towards preventing that fearful disease. It is in the form of a small case containing a very soluble prepared point composed of compressed nitrate of potash (10 parts), and corrosive sublimate (2 parts), and meant for public and police use, and to be attached to the ordinary key ring, and thus be always at hand for instant use in cases of dog-bite or poisoned wound. The composition of the virus destroyer is not the chief point. I only chose corrosive sublimate because it is the strongest at present known, and will keep without risk or loss. The main thing is to have an antidote at hand for instant use. These could be made cheaply, and be in the hands of everyone, and for the poor the police could carry them and be instructed in their use. At present it is the delay that is so fatal before aid can be got in many outskirts &c., where dogs are and no help is near. Their use is not meant to supersede medical advice, which could be sought as hitherto, but the sufferer would then be treated with the virus probably destroyed, and not, as now, after it has been absorbed. A dog-bite is usually a superficial scratch or tear, and not a sharp puncture, and even if the canine teeth be inserted deeply the saliva gets mainly or entirely rubbed off and left on the surface. The lunar caustic still used is decomposed into chloride and so rendered inert. Setting aside extreme cases (which I believe are attended with least risk on account of copious bleeding), in by far the majority of cases the virus destroyer would destroy the virus. Full directions would be given with each, and instructions that after use a doctor should be at once sought. The moral effect, too, of the use of these would be great; many of the deaths arise from fear, and I have no doubt that in these fatal cases, when even the parts bitten were excised, either it was done too late or the bad result was due to mental impression.

I may add that from the first, and all through your various reports, I have never been able to see anything but risk in Pasteur's treatment. Experiments on animals and bites on a nervous man who has heard of the ravages of rabies are widely different. It by no means follows that, for reasons stated before, all persons bitten by rabid dogs will take hydrophobia or that persons bitten by healthy dogs will not take it. Personally, were I bitten, and even when amongst dogs, my mind would be immensely relieved by knowing that always in my pocket there lay a probably immediate antidote.

As regards the strength of corrosive, R. Koch of Berlin found that the spores of anthrax, perhaps the hardiest of known forms of germ life, could be destroyed by such weak solutions as 1 in 10,000 and 1 in 20,000.[1] Risk of poisoning would be *nil.*

I am, Sirs, your obedient servant,

Morecambe, Dec. 4th, 1887. THOS. MACCALL, M.D.

*** The notion advanced by Dr. Maccall is decidedly worth entertaining; his method presents nothing which can be objected to on *a priori* grounds, and may prove of great value. There is nothing so convincing, however, as experiment. The antiseptic pencils would also be useful in rendering ordinary small wounds aseptic.—ED. L.

ALBUMINURIA IN THE APPARENTLY HEALTHY.

To the Editors of THE LANCET.

SIRS,—With reference to the letter from Dr. Ralfe in your issue of last week in connexion with my contribution to THE LANCET of Dec. 10th, I shall be obliged if you will kindly permit me to say a few words. When writing the paper, of some parts of which the contribution just referred to was a summary, I made a careful study of Dr. Ralfe's most valuable book on renal diseases, and was much rewarded thereby; but I think I am to be excused if, on reading his article in THE LANCET of Oct. 23rd, 1886, written some time after the publication of the book, I came to the erroneous conclusion that Dr. Ralfe had in the meantime found reason to modify his opinion on the subject. For these are his words: "Writers, under the terms 'intermittent albuminuria,' 'albuminuria of digestion,' 'cyclical albuminuria,' the 'albuminuria of adolescents,' &c., have described a condition in which, without any great disturbance of bodily health, and apart from any definite renal disease, albumen is found more or less continuously in the urine. Although the question, whether these forms of albuminuria, as the various terms applied would imply, are really in each instance distinct, or whether they are brought about by the same pathological factors, may still be considered by many an open one, yet I think there are many considerations which would make us decide entirely in favour of the latter supposition. In the first place, taking "any one of the above forms of albuminuria, we find that though it may occur in any sex and at any age, yet the largest proportion of recorded cases will always be among young adult males. Again, these forms of 'albuminuria' are nearly always found occurring among individuals who are either suffering from some constitutional taint, inherited or acquired—such as gout, rheumatism, syphilis, or malaria, —or in whom some disturbance of the vaso-motor system can be demonstrated. ..... The urine, too, in all cases of functional albuminuria exhibiting these features, so far as they have come under my observation, presents two characteristic features — viz., increase of urea and an abnormal amount of urinary pigment; whilst, but as a less constant phenomenon, bile pigment can also usually be detected. ..... There is always a degree of anæmia ..... sufficient to be determined by the hæmocytometer." In my original paper I had come to compare my own results with those of others, and I find there the following reference to Dr. Ralfe's: "It is the exception in my experience to find any constitutional taint, and the *demonstration* of a vaso-motor disturbance is certainly impossible in many cases, except by the presence of the albuminuria itself, though a decided want of tone in some instances is to be found. In one group of cases an increase of urea and pigment is visible, but certainly not in the larger

[1] Vide reports of the German Imperial Board of Health; also Lister on Sero-sublimate Dressings, THE LANCET, 1884.

number, and anæmia cannot be said to be present in a considerable proportion.

Expressing my indebtedness to Dr. Ralfe for much valuable information afforded by his work on Renal Diseases, and to you for the valuable space which you have given me,

I am, Sirs, yours faithfully,

Grays, Essex, Dec. 20th, 1887. ALEX. W. STIRLING.

DEGREES FOR LONDON MEDICAL STUDENTS.

To the Editors of THE LANCET.

SIRS,—I notice in this morning's *Daily Leader* that a Convocation will be held in Bishop Cosins' library (wherever that may be), Durham, for the purpose of submitting a petition to the Queen against the proposal to bestow upon the Royal College of Physicians, London, and the Royal College of Surgeons, England, the power to confer degrees in Surgery and Medicine. As there are no reasons given in support of the petition, I have been trying in vain to find a single one, but without success. I have, however, thought of three possibilities: (1) It may be thought that the examiners giving the degrees in London at the Royal Colleges of Physicians and Surgeons (always till now looked up to as the greatest teachers in the land) are not fit, when compared with the University of Durham teachers, to confer degrees. (2) It may be that the facilities for teaching and hospital work in London are inferior to those of the University of Durham, and that the teaching of the other provincial schools is as bad as London itself. Or (3) it may be that, if degrees are given at the College of Physicians and Surgeons, London, they will be preferred to the Durham one; or is it, again, that the house at London and Durham, divided against itself, cannot stand, or, in other words, "save me from my friends"?

We have yet to learn that the noblest examples of our profession have come from the older Universities; in fact, almost without exception they have been educated in the place, or at any rate have obtained their qualification in the place, which the petition of the University of Durham would like to stop from granting degrees.

Again, where is this great superiority of the University of Durham, and in what does it differ from other provincial medical schools? Why should not—measuring things on the same level—all provincial schools be universities? To this question I can give no answer.

I think that we often see gentlemen signing petitions far behind the times—gentlemen 500 years behind the times,—and it makes one almost believe that, had they the power, they would bring back the old-fashioned medicine of charming, anointing, embalming, and witchcraft, for they evidently think that a degree of a University cannot be improved by the greatest teachers or the largest field of material, or else they would not oppose the granting of degrees by the London Colleges of Physicians and Surgeons.

It is to be hoped that the time will come when, for the advancement of our noble calling, ability and facilities for knowledge, when found, will be assisted and pushed on rather than stopped by a narrow-minded University.

I am, Sirs, yours truly,

Newcastle-on-Tyne, Dec. 18th, 1887. JOHN WHITEHOUSE.

THE HEALTH OF NEWCASTLE-UPON-TYNE.

To the Editors of THE LANCET.

SIRS,—In last week's Northern Counties Notes your "own correspondent" recalls the familiar quotation, "Incidit in Scyllam qui vult vitare Charybdim." Whilst demurring to the circumstance of the School Board regulations having been blamed as a factor of the recently increased mortality (in which I concur with him, for in the way of cause and effect there is, to my mind, no connexion between the two), he proceeds to arraign what he terms the "bureaucratic management of the city," and affirms that "disease is often concealed for fear of notification and inspection, with removal of patients and beds." If your correspondent can give me the names and addresses of any such cases I hope he will do so. His allegation involves either a charge of concealment by a medical practitioner, or one of wilful omission on the part of the householder to call in a doctor, in addition to wilful concealment. The former, I can scarcely think, is intended. If the latter is implied, it would have been both humane and public-spirited of him to have given the sanitary authority intimation of the circumstances at the time of their occurrence.

How, as your correspondent seems to conjecture, "these new sanitary arrangements," as he calls notification and inspection, have made the people neglect cleanliness, is beyond the reach of my imagination. I utterly fail also to follow him in his closing flight of fancy in which he attributes the high death-rate to a fantastic combination of heat, excitement, poverty, and streams of infants nightly rushing to wash down raw tripe at "long bars." Such a state of things in Newcastle is certainly not within the range of my experience.

I am, Sirs, yours obediently,

HENRY E. ARMSTRONG,

Dec. 21st, 1887. Medical Offier of Health.

THE EYE INFIRMARY, NEWCASTLE-ON-TYNE.

To the Editors of THE LANCET.

SIRS,—Knowing how ready you always are to forward anything which is of professional interest and utility, I shall feel obliged if you will publish the following statement.

Owing to the pressing nature of the needs of the district, the committee of the above-named institution in the year 1885 found it necessary to purchase a site and build a new hospital for the treatment of ophthalmic diseases. Thanks to the generosity of the public, who came liberally to our aid, they have successfully accomplished this desirable object, and the northern counties are now in possession of a model hospital, which is in full work. It has been suggested that one thing would add to the completeness of the establishment, and that is the foundation of a reference library of works bearing on ophthalmic practice. Many medical men having old books, authors and others having surplus copies of their works, would, I feel sure, help us when our wants are made known. We shall be happy to pay the carriage of any parcel of books or periodicals addressed to me at the hospital, and their receipt will be formally and thankfully acknowledged.

I am, Sirs, yours faithfully,

CHRISTOPHER S. JEAFFRESON, F.R.C.S.E.,

Dec. 1887. Senior Surgeon to the Hospital.

THE RECENT TRIAL FOR MURDER AT CORK.

(From our Special Correspondent.)

FOR the past week the trial of Surgeon-Major Cross, late of the 53rd Regiment, for the murder of his wife by poison, has engrossed the attention of the inhabitants of this city to the exclusion of every other topic of conversation. Home Rule, Plan of Campaign, Land League, all paled into insignificance in face of this one all-absorbing case; nothing else was talked of save the probabilities of the verdict which the jury would bring in, whether "guilty" or a disagreement, the most sanguine not anticipating one of acquittal. That such interest should be taken in the case need not surprise us when we reflect upon the social status of the parties concerned: Surgeon-Major Cross, in addition to his half-pay, being possessed of considerable private means; whilst his late wife was the daughter of a highly esteemed family resident in Essex. They had been married eighteen years, and had a family of five children. The case was tried before a special jury in the presence of Mr. Justice Murphy, whose long experience as a criminal lawyer eminently qualified him for the task. I have forwarded you the evidence as it was produced from day to day; it now only remains for me to make some general comments on the case. And first of all, I should wish to make some remarks on the demeanour of the prisoner, who entered the dock evidently confident of an acquittal, an appearance which he preserved on the first two days of the trial. On the third day, however, he seemed to be nervous and anxious, an appearance which was intensified on the fourth day, the last day of the trial. However, when the jury brought in the dread verdict "Guilty" he really seemed to be the only unconcerned party in Court, and when asked why sentence of death should not be pronounced upon him, he proceeded in the coolest possible way to comment upon the evidence, referring for the purpose to the notes he had made during the progress of the case, and occupying some forty minutes in this manner.

The case for the Crown, as laid before the jury by the Attorney-General, was that on some three or four occasions he had administered small doses of arsenic, and that on the last occasion he gave a larger dose, supplementing its action shortly before death by strychnine. The administration of strychnine was evidently surmised from the fact that some cries were heard from deceased very shortly before her death, and this although no tetanic rigidity was at any period manifested in the corpse. The *repeated* administration of arsenic was inferred from the symptoms present during the last three weeks of her life—vomiting and purging, with periods of intermission—also on the evidence of one lady that her eyes were affected for two days, but the last few days of her life she did not observe them to be affected. No satisfactory evidence was adduced of the existence during this period of the characteristic burning pain produced by large doses of arsenic, nor yet of the presence of cramps at any period of her illness. The case for the Crown was supported by the analysis conducted by Professor Pearson, of the Queen's College, Cork, who gave his evidence in a manner that I have rarely seen equalled in a court of justice. Calm, cool, gentleman-like, he described the various tests he employed to detect the presence of arsenic, finally producing three tubes containing arsenic, each sample being the result of a different mode of analysis. There was but one blot in Professor Pearson's evidence. On August 1st, at the magisterial inquiry, he swore that, as the result of his quantitative analysis, "the liver contained over three grains." On September 5th his previous deposition was read over to him, which, with some slight corrections, he reaffirmed, leaving this statement standing; but a very few days before the trial he amended his depositions, reducing the three grains to 1·28 grains so found—a fact eagerly laid hold of by the prisoner's counsel, and upon which they principally grounded the defence. Professor Pearson's explanation of this discrepancy was that, upon the occasions when he made his depositions, he had not his notes by him—that they were at the College. Be this as it may, however, he produced before the jury in his tubes quite enough arsenic extracted from the body of the deceased to account for her death. Dr. Cross having registered his wife's death as being the result of typhoid fever, Professor Pearson swore, relying on the absence of intestinal lesions, that she did not die of typhoid fever. It is, however, a question open to interesting discussion as to the appearance which the intestines of a person who died in the earlier stages of typhoid, previously to the setting in of ulceration, would present some fifty-six days after interment. Dr. Cross was proved repeatedly to have stated that his wife had heart disease; Professor Pearson swore that the organ was sound so far as post-mortem appearances went: statements perfectly reconcilable, as every practising physician knows; and it is only fair to Dr. Cross to observe that his statement was corroborated by the evidence of several of the witnesses produced by the Crown.

The leading counsel for the prisoner, Mr. Atkinson, Q.C., opened the defence in a speech which was beautifully delivered, felicitously phrased, and closely argued, basing his defence principally on the improbability of one conscious of guilt committing the mad acts that the prisoner had done—acts certain to excite suspicion and to induce inquiry. He arraigned the skill of the analyst, dwelling at length on the blot in his evidence already alluded to, concluding his speech with a magnificent peroration which wrested from an evidently hostile audience applause, which, however, was promptly and severely silenced by his lordship, who delivered his charge to the jury in such terms as to leave but little doubt in their minds of the prisoner's guilt.

Cork, Dec. 18th.

LIVERPOOL.

(From our own Correspondent.)

LORD WOLSELEY ON ATHLETICS.

ADVANTAGE was taken of the recent visit of Lord Wolseley here, at the unveiling of the statue erected to the late General Earle, to secure his presence at a tournament held in the Liverpool Exhibition, in connexion with the National Physical Recreation Society. In distributing the prizes, his lordship said he did not think that there was any man in that great building at that moment who was more interested in athletics than he was. And he would tell them the reason why. It was because he believed that the first great necessity of man was health, and it was impossible that he could be healthy unless his body was thoroughly exercised and his muscles were kept supple and always in good working order. He could not help thinking that the good deeds and achievements that had been accomplished by the English people from time immemorial had arisen from the fact of their being a healthy and strong people. They might rest assured that men with flabby muscles, and poor, miserable constitutions never could be either the fathers of healthy children or even respectable citizens. The conditions of their life in England of late were very much changed from what they were in former times. In past generations people lived much more in the country than they did now. At this present period of the nineteenth century there was a tendency to crowd into large cities and towns, and he felt it to be the bounden duty of every man and woman and child interested in the future of England to do all that was possible to further the work of athletic instruction and to promote athletic sports. He had often thought what a great pity it was that the people who made the laws for them when they started that great scheme of education—which they did start, and which had worked such very great changes and benefits for the people of all classes in the community—did not couple their endeavours to educate the mind with some arrangement for educating and training the body. He hoped sincerely that the time was not far distant when they would have attached to every board school in the country a good drill sergeant, a good gymnast, a good gymnasium, and a good place where they could take exercise. He had been very much struck with what he had seen there that evening. That was the first time he had been in that hall, and he had wondered at its enormous size and the number of people that it held, and he could not help feeling what a loss it would be to the people of Liverpool if that building were ever allowed to be removed. Indeed, he could not help thinking that it would amount to a positive disgrace to the city if it ever allowed that magnificent building to be taken away from that place, and by doing so deprive the younger people of the possibility of going there to train, as all of them might. It was a hall which from its size alone was not only evidently intended for athletic sports, such as had taken place there that evening, but was also a hall where he was sure his friends the Volunteers would be very glad to go to parade and exercise and drill. He was told it could be had at a very small price. He therefore hoped the public spirit of the people of Liverpool would enable it to be purchased for the benefit of the Volunteer forces, and, above all things, for the benefit of those athletes. He wished them all a very good night, and was much obliged to them for the very cordial welcome they had accorded to him. He should carry away with him a very pleasant recollection of all he had seen, and only hoped that the success which had attended that meeting might be continued in the future.

THE POLICE AND NIGHT DUTY.

The night beat of the Liverpool police is from 9 P.M. till 5 A.M., and during the winter months this duty is very severe; but the men are only placed on it for short intervals, and while doing it they have the rest of the day at their disposal unless they are required in court. Many years ago an excellent arrangement was commenced, which has continued ever since, by which all the men on duty are enabled to go in detachments to the district bridewell between 1 and 2 A.M. Here facilities are ready for each man providing himself with hot coffee, thus causing an agreeable break in a long and often monotonous watch, and giving each man a wholesome stimulant to enable him to finish the remainder of his duty.

THE ROYAL INFIRMARY.

A special appeal for additional and increased donations towards the Royal Infirmary Rebuilding Fund has met with a very liberal response, and it is hoped that the whole of the required sum will be subscribed before the building is completed.

DRUG PROSECUTION IN LIVERPOOL.

A chemist was to-day fined five shillings and costs for selling sweet spirit of nitre which Dr. Campbell Brown certified to be completely decomposed by keeping.

December 21st.

MANCHESTER.

(From our own Correspondent.)

TECHNICAL EDUCATION.

THE movement for promoting technical education has been taken up warmly in Manchester, and at a public meeting held in the Town Hall, and largely attended by a very influential and representative audience, Professor Huxley gave a very eloquent and exhaustive address, setting forth the objects and aims of the present movement in this direction. On the same day a most munificent offer tending towards the same object was made to the city by the trustees of the late Sir Joseph Whitworth, who have purchased the estate on Oxford-road known as Potter's Park, at a cost of £47,000. This estate they are willing to hand over to the corporation as a gift, to be used as an open space and park for the use of the people; but they ask that there shall be provided on one part of the property a museum of commercial products and materials, an art gallery, and a technical school on a complete scientific and practical plan.

PURE AIR.

The Noxious Vapours Abatement Society and branch of the Sanitary Association deserve much credit for their persistent efforts to abate and reduce the smoke nuisance. Amongst the lectures lately delivered under their auspices have been one by Mr. A. E. Fletcher, chief Government inspector under the Alkali &c. Act, and another by Mr. Herbert Fletcher, a large manufacturer and user of steam power at Bolton. Ample evidence was adduced by both these very competent witnesses that the pollution of our atmosphere here and in other large manufacturing towns is entirely unnecessary. Mr. H. Fletcher gave details of the arrangements now in use at his own works, whereby the commonest kinds of coal can be burnt without producing smoke, to the gain of the consumer and relief from dirt of the surrounding inhabitants. Surely it is time that those charged with carrying out the law bestirred themselves more vigorously. Lately we have had a few more prosecutions of the worst offenders, but whilst they are permitted to escape with a fine of twenty or thirty shillings we shall not see much improvement in our murky, grimy atmosphere.

OWENS COLLEGE.

This College has lost by death another of its professorial staff. Professor Balfour Stewart, who since 1870 has held the chair of Physics, died at his residence near Drogheda on Monday, quite unexpectedly. His name is known to all scientists in connexion with the radiation and absorption of heat, and with the subject of terrestrial magnetism. He took considerable interest in the proceedings of the Psychical Society, but what his own opinions were with respect to the work and inquiries initiated by that body are not very clearly known. On Saturday night the annual soirée of the College Union took place in the College buildings, the attendance at which was very large. Scientific apparatus, experiments, drawings, music, and singing were provided for the entertainment and instruction of the visitors. The concert in the chemical theatre, given by some of the members and their friends, was very enjoyable.

CHEAP MEALS.

Another good work being done, and which has been aided to a great extent by the Sanitary Association, is the provision this winter of cheap meals for the poor school children. Operations were commenced last week, when dinners were provided in the Ancoats districts to a crowd of hungry children, at a cost of a halfpenny each, consisting of pea-soup and bread, and a slice of bread-and-jam. This charge of one halfpenny defrays the actual cost of food and cooking, but the expenses of labour, room, utensils, &c., have to be met out of voluntary subscriptions, and the committee ask for a sum of £500 to enable them to do what they at present contemplate.

HOSPITAL ACCOMMODATION IN SALFORD.

The provision of a new Fever Hospital for Salford is still anything but *un fait accompli*. In the meantime scarlet fever still prevails extensively, seventy to eighty fresh cases per week being reported in the two municipalities; and it was stated publicly very recently that the present Salford Hospital is full to overflowing. The medical officer of health for Salford has issued a notice that persons wilfully exposing infected children, or failing to observe the ordinary methods for preventing the spread of infection, will be prosecuted under the provisions of the Public Health Act, 1875. It is of interest to note that some of the smaller health authorities are taking a real interest in their duties in this respect, as the Local Boards of both Moss Side and Crumpsall have just lately passed a resolution expressing the desirability of obtaining further powers as to the control, supervision, and reporting of infectious disease at dairies and farms.

Dec. 20th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

SCARLET FEVER AT NEWCASTLE WORKHOUSE.

IT is stated in our papers that nearly 200 cases of scarlet fever have occurred in the Newcastle Workhouse during the last outbreak there, with a mortality of only about 1 per cent. It would be interesting to the profession to know how many cases have been marked by the usual sequelæ, and it is to be hoped that the medical officer will in time give us a history of this remarkable and, in many respects, exceptionable epidemic. It is stated that Dr. Mowat, acting under instructions from the Local Government Board, has just visited the workhouse to inquire and report upon the outbreak.

TYNE PORT SANITARY AUTHORITY.

At the annual meeting of this authority, held last week, the report of the inspector stated that during the past two months the inspection of vessels had been as follows:—British steamers 1233, British sailing vessels 461, foreign steamers 301, foreign sailing vessels 179, visits to fishing vessels 10, water boats 6, extra visits 486, grand total of visits 2676. In the great majority of cases where sanitary defects were found and orders given they were complied with.

WHITE-LEAD POISONING.

At a late meeting of the Gateshead Board of Guardians the subject of lead poisoning in female workers came up for discussion, and the following resolution was adopted: "That, having regard to the great burden cast upon the union by the manufacture of white lead, the victims of such work having to be maintained for a life-long period on account of their premature decrepitude, palsy, and blindness, inevitably resulting from the present modes of manufacture, we hope the Government will insist upon machinery being used in the most dangerous parts wherever practicable." It was stated during the discussion that the system resulted in a mortality of 25 per cent. in the female workers, in spite of all sanitary precautions usually taken in the best works. It was shown that one of the most dangerous stages of the manufacture was where the girls carried the white lead in the form of liquid from the van to the store. The workers were in a state of perspiration, and the white lead was splashed about them and absorbed through their pores, and it was contended that no medical treatment could fully neutralise that effect.

DURHAM UNIVERSITY AND MEDICAL DEGREES.

The news that the two great Colleges in London were anxious to combine to give a medical degree has been received here with much favour, but the project would have received even a greater welcome had the Hall been included in the proposed arrangements. As might have been expected, however, the University of Durham is not content, and a convocation will be held in Bishop Cosin's Library, Durham, to-morrow, for the purpose of submitting a petition to the Queen against the proposal to bestow upon the Colleges of Physicians and Surgeons of England the power to confer degrees in medicine and surgery. The present arrangements suit the University of Durham and its connexions admirably, but it forgets that their continuance are most oppressive to the English student of medicine. It is felt here that the step taken by the University of Durham is against the feeling of the times, as well as against the broad interests of the profession.

DRUNKENNESS IN NEWCASTLE.

Some exception has been taken against some statements in my last letter as to drunkenness in Newcastle, and it has been pointed out that there has been a little less drunkenness this year—according to the report of our chief constable, Captain Nicholls—than last year, notwithstanding the many thousands who have come to Newcastle to visit

our Exhibition. This is quite true, and it speaks very well for our citizens, as well as for our visitors; but the point in my letter was directed against a certain and very large class of our working men, and we must fail to believe the evidence of our senses if we imagine that there is any diminution in intemperance or the many evils which spring from it amongst thesame class at the present day.

Newcastle-on-Tyne, Dec. 19th.

EDINBURGH.

(From our own Correspondent.)

TIME INCIDENCE OF CARDIAC MURMURS.

At the last meeting of the Royal Society an important paper on the methods of determining the exact situation of murmurs in the cardiac rhythm, and their relation to the series of events forming one complete cycle of the heart's action, was presented by Dr. Byrom Bramwell and Dr. Milne Murray. Their investigation was an outcome of the recent discussion in the columns of the LANCET upon the exact significance of presystolic murmurs raised by Dr. Dickinson's paper upon the subject. The object of the present research was to determine at what stages of the cardiac movements the various sounds that accompany them really occur. The exact registration of the movements themselves is accomplished by the cardiograph; but an instrument of telephonic registration of the sounds is still a desideratum. In his remarks on this subject Dr. Bramwell stated that he had directed Mr. Edison's attention to this matter, and pointed out to him of what great value such an apparatus would be to the clinical observer in medical diagnosis. Failing the application of such an instrument to the solution of the problem, Drs. Bramwell and Milne Murray have in the meantime invented an apparatus that goes far towards surmounting the difficulty. While the cardiac movements are recorded graphically on a prepared surface of paper by the cardiograph, a time-recording apparatus marks the exact interval of time on the same, and in addition to this a third writing style, under the control of the observer, marks time to the rhythmically recurring sounds of the heart as he hears them through a flexible stethoscope with blindfolded eyes; thus being alike cut off from the misleading tactile impressions of the cardiac impulse and the concomitant visual impressions of the movements of the end of the stethoscope accompanying the movements of the chest wall. This record involves theoretically the "psychic loss" necessary to the sensori-motor activity on the part of the observer in hearing and recording the sounds conveyed to him through the stethoscope, and an interesting collateral series of experiments was performed for the purpose of ascertaining its equivalent expressed as a period of time. This preliminary observation, made with a seconds clock, which recorded its own beat, and had its concomitant ticking synchronously recorded by an observer as the cardiac sounds were recorded in the way described above, shows that this psychic loss is practically *nil*. After the observation had been continued for a short time the latent period due to the sensori-motor action of the observer became shortened, the nervous system, apparently becoming accustomed to the rhythmic impressions, conveys them more speedily, and the actual record of the clock's beat and that of the clock's tick, as heard and registered, were found to coincide precisely. Thus in a heart where the action is regularly rhythmic, the sounds produced in the rhythm can be recorded, after an interval of probation on the part of the observer, with absolute accuracy, and the result of this record compared with the reading of the movements recorded by the cardiograph; and any sound may be thus referred to its exact situation in the cardiac cycle. Taking a case of proved relationship in this respect, one of aortic regurgitation, it was found that the murmur was always registered exactly at that point in the cardiac cycle where its causative reflux is known to occur, showing that the method is reliable, and can be applied to the question so fully discussed recently as to where and how presystolic murmurs are occasioned. Into that question the observers have not as yet fully entered, but they hope to communicate further on the subject when a sufficient number of cases shall have come under their notice to furnish data for a reliable conclusion.

Edinburgh, Dec. 20th.

ABERDEEN.

(From our own Correspondent.)

HEALTH OF THE CITY.

For October, Aberdeen had the lowest death-rate of the eight principal towns in Scotland; but for November it did not occupy such a satisfactory position. For last month the death-rate was 20·4 per 1000, as compared with 19·2 in Leith and 20·2 in Edinburgh. There was a gratifying decrease in the number of cases of scarlet fever during November. In September there were 73 cases of scarlet fever, 114 in October, and 47 in November. Whooping-cough is on the increase; there were 68 cases reported in November, and during the present month 50 cases have already been reported. Since August there have been 22 deaths from whooping-cough, as against 16 from all the other zymotic diseases—viz., 1 from small-pox, 1 from measles, 10 from scarlet fever, 2 from diphtheria, and 2 from typhoid fever. In November there were 5 cases of typhus fever in St. Nicholas parish. There were 56 patients in the city hospital on Nov. 1st, and 40 were admitted during the month, making a total of 96; and of these 45 had been discharged and 1 died, leaving 50 in the hospital at the beginning of the present month.

THE MEDICAL OFFICERSHIP OF HEALTH.

Dr. Theodore Thomson, who has held the office of medical officer of health for the city since Dr. Simpson's appointment to Calcutta, was recently appointed medical officer for Sheffield. Lord Provost Henderson, at the Council meeting yesterday, expressed his regret that the city was "to lose the services of Dr. Thomson so soon, ... it looked as if Aberdeen were to be a nursery for the training of medical officers for other cities." At a meeting of the Public Health Committee held to-day, it was resolved to request Dr. M'Kenzie Booth to fill the office, *ad interim*, between the departure of Dr. Thomson and the appointment of his successor. For the vacancy, which is to be advertised, Dr. John D. Thomson is a candidate. Dr. Thomson has just returned from Berlin, where he had been studying under Professor Koch, and for some time after graduating he acted as assistant to Professor Ogston.

UNWHOLESOME FOOD.

During the month of November the sanitary inspector seized 890 lb. of beef, 177 lb. of mutton, 5417 lb. of fish, 78 lb. of fruit, and 132 lb. of vegetables, all of which were destroyed, either with the owner's consent or by order of the magistrates. There had been 458 inspections during the month.

Aberdeen, Dec. 20th.

DUBLIN.

(From our own Correspondent.)

THE EPIDEMIC OF MEASLES NEAR SKIBBEREEN.

At a meeting last week of the Skibbereen Board of Guardians a communication was received from Dr. O'Farroll, medical inspector of the Local Government Board, in reference to the extensive and fatal epidemic of measles which has prevailed for some time in the Skibbereen district. It appears that the disease exists at Tullagh, on Hare Island, and at Baltinare. Measles was imported last September into Baltinare by a sailor returning from a training ship at Plymouth, and since then a very large number of cases have occurred through the Tullagh district, amounting to about 200, with some eighteen or twenty deaths. The deaths which have taken place have been for the most part among young children, and the mortality among them would seem to have been due not so much to any special malignity of the exanthem poison, as to the severity of those pulmonary affections which complicate measles, and which at this season of the year are often, even with the most favourable surroundings, of very serious import. But these children were nursed in a wretched room or cabin, so small that the air space is barely sufficient for a single person. In Hare Island eighteen families were affected with measles, with only one death. The water supply of this island is of a very bad kind, the water obtained from the wells by the inhabitants being constantly polluted by the excreta of cattle and other animals.

The consideration of the report has been deferred to the first week in January.

ROYAL COLLEGE OF SURGEONS.

In consequence of a petition to the Council from some students, that body have passed a resolution calling on the committee of management of the conjoint scheme to publish at once all necessary details as to the examinations. This was urgently required, as the students have not, up to the present time, been able to learn to what extent they were required to be prepared in certain subjects.

GALWAY COUNTY INFIRMARY.

A meeting of the governors was recently held to elect a resident surgeon to the hospital, in the room of the late Dr. Browne. The following were candidates:—Messrs. Mahoin, Lambert, Kinkead, Colohan, and Pye. Eleven votes were recorded for Dr. Colohan and four for Dr. Pye, the former being declared elected. As, however, nine of those who voted had only that day paid in £21 each, constituting them life governors, a protest was lodged against the reception of their votes as illegal and contrary to the Act. Should this view of the matter be correct, it follows that Dr. Pye will be elected; at all events steps are being taken to test the legality of the election.

CANAL-STREET DISPENSARY: SOUTH DUBLIN UNION.

A meeting of the South City Dispensary Committee was held to-day (Tuesday), to elect a successor to Dr. Ball, who had resigned his appointment as medical officer to the Canal-street Dispensary, which he had held for the past seven years. There were eleven applicants for the post, Dr. Falkiner being elected, subject to the sanction of the Local Government Board.

Measles is still prevalent in Dublin, and during the past nine weeks 116 deaths have been registered from this cause.

Dublin, Dec. 20th.

PARIS.

(From our Paris Correspondent.)

THE PURIFICATION OF WATER.

IT is now generally admitted that water plays a very important *rôle* in the production and propagation of epidemic maladies. To render water really innocuous two means are generally employed: (1) By antiseptics; (2) by ebullition. In a communication recently made to the Société Française d'Hygiène, M. Charles Tellier, an engineer, stated that the first means named is uncertain, and is not within the reach of everyone. The second is good, but it has the following inconveniences:—1. The temperature of 100° C. (212° F.) is not sufficient to destroy all the microbes. 2. The air of the water is expelled by the effect of ebullition, and the water becomes heavy and indigestible. 3. The calcareous carbonates are equally precipitated, and the water becomes less sapid. 4. The earthy portions in suspension in the water are also precipitated, and the latter is rendered disagreeable to drink. To obviate these different inconveniences, the author proposes the substitution of water submitted to a higher temperature for water which has been merely boiled, and the following is the manner in which this is effected. A closed metallic recipient, perfectly air-tight, being able to support a pressure of six atmospheres, is established. At the bottom this recipient presents an enlargement, which is calculated so that by the dilatation during the heating the water completely fills the recipient. A tap placed in the lower part, surmounted by a filter, permits the drawing off of the water; another tap placed in the upper part surmounted, at the moment of its employment, by a filter in cotton wadding, allows the air to enter. When the bottle is full of water, it is placed either in a bath saturated with marine salt, or in a recipient into which steam is admitted. In the one case, as in the other, it is heated, and the water is thus raised to a temperature varying from 114° to 150° C. The following are the results of this operation:—1. The water remains perfectly aerated, as, having been heated without pressure, the air cannot separate itself, and remains dissolved. 2. The water remains charged with its calcareous salts, as the carbonic acid is not disengaged. 3. The other salts and earthy matters are precipitated, but they separate from the water at the moment of its employment, as a filter exists in the apparatus. 4. The filter is never contaminated, as it is itself baked at each operation. 5. In fine, the water remains purified during the whole time of its employment, as the air which enters into the apparatus is itself filtered by the cotton.

ANTIPYRIN.

For some time past Dr. A. Robin has been engaged in researches respecting antipyrin, so as to assign to it its proper place as a therapeutical agent, and the following are the conclusions arrived at by him, which he formulated in a paper he recently read before the Academy of Medicine: 1. Antipyrin acts at first on the nervous system, of which it modifies the excitability, not in a purely dynamical manner, but in acting on its elementary nutrition. 2. It diminishes organic disintegration, and lowers still more organic oxidations, whence the production of an excess relative to the lithic acid and to the nitrogenous extractive materials, which are less soluble, and consequently with more difficulty eliminable, than urea. It is probable that this influence on the general nutrition immediately depends on the effects of the antipyrin on the nervous system, as the depressing medicaments of nervous activity act nearly all in the same manner. 3. Antipyrin possesses also a powerful antiseptic property, which is very marked, and which appears to manifest itself as well in the organism, and without injury to it, as in the experiments in the laboratory. In a word, antipyrin acts in the first place on the nervous system, of which it moderates the excitability in modifying its elementary nutrition; it diminishes the organic disintegration and lowers still more the organic oxidations, and may for this reason be classed among the series of medicaments to which Professor Germain Sée has given the name of "*médicaments d'épargne*." Its action as an antipyretic is *nil*, whilst against painful affections its action is well marked. Dr. Robin would therefore suggest that the name "analgésine" should be substituted for antipyrin.

Paris, Dec. 20th.

Obituary.

SIR GEORGE BURROWS, M.D., F.R.S.

BY the death of Sir George Burrows, which occurred in his eighty-seventh year, at his residence in Cavendish-square, on the 12th inst., another, almost the last, survivor of the old school of distinguished Cambridge graduates who adopted medicine as their profession has passed away. He came of an old Kentish family, established certainly as far back as the Commonwealth at Chalk, in the neighbourhood of Gravesend, where the birth, in 1771, of his father, Dr. George Man Burrows, himself an eminent member of the medical profession, took place. Sir George Burrows was born on November 28th, 1801, in Bloomsbury-square, where his parents then resided, and received his early education at a school at that time of some note in Ealing, where he had for his fellow-scholars several who afterwards distinguished themselves, amongst them being Cardinal Newman and Mr. F. W. Newman. On leaving this establishment Sir George attended the lectures of John Abernethy at St. Bartholomew's Hospital, of Professor Brande on chemistry, and of Professor Faraday on electricity and other kindred subjects. At the end of two years he proceeded to Caius College, Cambridge, where, although he had obtained a Tancred medical studentship, he devoted himself to the special study of that University, and graduated as tenth wrangler in the Mathematical Tripos of 1825. It may be mentioned that during his undergraduate days he organised and pulled stroke in the first six-oar racing boat that floated on the Cam. Immediately after his graduation he was elected a Fellow of his College, and appointed junior Mathematical Lecturer. He occupied much of his spare time in private tuition, and was a popular and successful teacher. However, he shortly afterwards returned to St. Bartholomew's Hospital, and, as a pupil of Sir W. Lawrence and Dr. Peter Mere Latham, who, with Sir Thomas Watson, formed at that time the leading lights of that famous school, commenced the systematic study of that profession he was in later years destined to so much adorn. After taking his degree in Medicine at Cambridge and the diploma of the Royal College of Physicians of

London, he availed himself of a favourable opportunity for foreign travel, and studied his profession for some time at the University of Pavia, in Paris, and in Germany. During his stay in Italy he had abundant opportunities for watching the epidemic of Asiatic cholera, then freshly imported into Europe; and upon its making its appearance in London in the year 1832, he was placed in charge of the auxiliary hospital established by the governors of St. Bartholomew's to meet the exigencies of the outbreak. This was his first official connexion with the institution. A little later, in 1834, he was appointed the first assistant physician, to take charge of out-patients. He first lectured on Forensic Medicine, and was subsequently associated with Dr. P. M. Latham as joint lecturer on the Science and Practice of Medicine. In 1841, upon Dr. Latham's enforced withdrawal from ill-health, he became sole lecturer, and was promoted to the full physiciancy, an office which he held with distinction till 1863, when he retired from the acting staff. On this occasion he was presented with a testimonial by his colleagues, and elected the first honorary consulting physician to the hospital. In 1832 he became a Fellow of the Royal College of Physicians, in which institution he subsequently delivered the Gulstonian, Croonian, and Lumleian lectures, in the latter of which he explained and illustrated experimentally the condition of the circulation in the brain under varying conditions of pressure. He filled in turn the offices of member of Council, Censor, College representative on the General Medical Council, and finally, in 1871, he was called by the unanimous voice of the Fellows to the presidential chair of the College, to which he was elected five times in succession. During his tenure of office as president—namely, in 1874—he was made a baronet. Having been appointed Physician Extraordinary to Her Majesty the Queen in 1870, he became Physician in Ordinary in 1873, on the death of Sir H. Holland. He was a member of the Senate of the University of London, president of the General Medical Council, of the Royal Medical and Chirurgical Society, and of the British Medical Association. Sir George was the author of a work on Disorders of the Cerebral Circulation, and the connexion between Affections of the Brain and Diseases of the Heart (the Lumleian Lectures in 1843-44), and of several articles in Tweedie's Library of Medicine. He was also a prominent member of the St. Albans Medical Society, of which he was at one time president. The composition of this Society was, and is, seven physicians, seven surgeons, and seven general practitioners. We believe that Professor Erichsen is at present president of the Society, which is so exclusive that one black ball suffices to ensure the rejection of a nominee for admission. Sir George Burrows was also a Fellow of the Royal Society, D.C.L. Oxon., LL.D. and Honorary Fellow of Caius College, Cambridge.

In 1834 Sir George married Elinor, the youngest daughter of his old master, John Abernethy. This lady predeceased him, but three children (two sons, and one daughter, married to Mr. Willett of St. Bartholomew's Hospital) survive him. Of commanding presence, Sir George invariably inspired confidence in his patients, and although he rarely smiled, and still more rarely laughed, he possessed a kindly heart and sympathetic mind, which caused his aid and advice to be frequently sought by those who knew him. Owing to his advanced age, he had of course for some years retired from practice, and to the younger school of medical men the name of our late *confrère*, who was a living link between the present and the giants of the past, is comparatively unknown. A correspondent who acted as his clinical clerk, and who now occupies a distinguished position in the metropolitan medical world, writes: "Next to Christison, ... I never knew in our profession a man of more solid worth and nobleness of character. He was a real leader of men, and a humble and devout Christian."

The funeral was held at Highgate Cemetery on the 17th inst., and perhaps there never was a more imposing private funeral ceremonial. The College of Physicians was represented officially by the senior Vice-President, Sir Edward Sieveking (nominated by the President, who was unable to attend), the senior Censor, Sir A. Garrod, and Sir Dyce Duckworth, treasurer, all wearing their official robes. Mr. Marshall represented the General Medical Council, Mr. Savory the Royal College of Surgeons, and Mr. Pollock the Royal Medical and Chirurgical Society; and the hospital staff of St. Bartholomew's Hospital were almost all present. The procession of carriages, nearly half a mile in length, included those of all the recognised leaders of the profession.

JOHN GEORGE FRENCH, F.R.C.S.

A LINK with the distant past has been broken by the death of this well-known surgeon, who expired suddenly on Dec. 4th, after attaining the ripe age of eighty-three.

Mr. French, who was born at Bow, Middlesex, on Oct. 13th, 1804, was the son of the Rev. William French, rector of Vange, Essex, and was educated at Christ's Hospital. Thence he proceeded to Worthing, where he served his apprenticeship with the late Mr. Morrell, a well-known medical practitioner in that town, and later entered as a student at Guy's. His teacher in surgery was Sir Astley Cooper—then in the zenith of his fame,—for whose scientific and personal qualities Mr. French always retained, in common with all the pupils of that great surgeon, a profound admiration. Having become L.S.A. in 1826 and M.R.C.S. in 1827, he was for a short time engaged in practice in Henrietta-street, Brunswick-square. In 1830 he succeeded in obtaining the post of surgeon to the workhouse infirmary of St. James's, Westminster, an appointment which he held for forty-two years. A considerable change has taken place in the administration of medical relief in the various parishes of the metropolis. For a great part of the time during which Mr. French held his post his duties not only embraced the charge of the workhouse and its infirmary, the latter including some sixty or eighty beds, but he had also, on the order of the relieving officer, to attend and provide drugs for the sick poor dwelling in various parts of the parish. The entire medical charge of the paupers was in his hands. The field of experience thus presented to a man of energy and ability was very great, and Mr. French availed himself of it very thoroughly. He proved to be a good surgeon and family practitioner in high estimation. In the year 1853 he became F.R.C.S. On his appointment to St. James's Infirmary, Mr. French at first resided in Marshall-street, Golden-square, removing in 1842 to 41, Great Marlborough-street, where he lived until 1872, the year in which he resigned his post. His last years were spent at 10, Cunningham-place, St. John's Wood.

The first outbreak of cholera in Great Britain occurred in 1831. The disease appeared in Sunderland in October, having been introduced by a vessel from Hamburg. When the metropolis was visited by the epidemic a cholera hospital was formed in St. James's, as in many other parishes, and Mr. French was appointed its medical officer. He threw himself into the duty with ardour, and employed the opportunities for the clinical study of the disease to such good purpose that a book published by him on the subject in 1835 attracted much attention from the philosophical style in which the subject was treated. In the autumn of 1848 the disease reappeared and persisted during 1849, giving further opportunities of study to Mr. French, and intensifying the enthusiasm which the subject always produced in him. Again appearing in 1853, the disease was signalised by an outbreak in the Soho district in the summer of 1854, which from its sudden and terrible mortality exceeded all experience of epidemic fatality in the metropolis since the time of the great plague. It was in this visitation that Mr. French became acquainted with the late Dr. John Snow, whose discovery of the conveyance of cholera by drinking water, first suggested by him in reference to an outbreak in South London, was confirmed by his investigations in the Soho outbreak, which he traced with unerring sagacity to a pump in Broad-street. Mr. French, who at first, like everyone else, was very sceptical as to the soundness of the position, became completely convinced by the demonstration afforded in this epidemic, and a most ardent promulgator of Dr. Snow's views. It was in this year that he published a second edition of "The Nature of Cholera Investigated," a work which, with occasional papers in the journals, served to create for him the position of an authority on the subject. His interest in this topic never failed, persisting even in his old age, in spite of the fact that it was not altogether reciprocated by those with whom he came in contact.

In 1862 Mr. French brought before the Royal Medical and Chirurgical Society a plan of treating carbuncle by a subcutaneous incision of its base, from which he had had excellent results, and which has scarcely received adequate recognition by surgeons. The paper was published in the *London Medical Review*, a periodical which has long been extinct. Although the subject of cholera was that which perhaps most strongly attracted him, he was fond of opera-

tive surgery, opportunities for which were very numerous in the public appointment which he held. He was one of the first to excise the hip joint, following the teaching of his friend Sir William Fergusson and Mr. Jones of Jersey.

There was a certain air of the old *régime* about Mr. French which even advanced age failed to destroy, though the profound deafness from which he suffered of late years necessarily left its mark upon him. In other respects he retained even to the day preceding his death a full command of his faculties, and time had not succeeded in destroying the bright and genial qualities which those who knew him in days gone by will well remember. He was a well-read man, not only in medical but in philosophical literature, and a lover of music and of art. His tall, well-set figure, endowed with a quite exceptional activity, as it was during the greatest part of his career, was a familiar object for many years in the hunting field, for, though a true-born cockney, he was amongst the most fearless of riders, and a great lover of horses. Of kindly nature, overflowing with animal spirits, and possessed of considerable sense of humour, Mr. French enjoyed, until his infirmity interfered, the acquaintance of a large circle of friends. The passage of time has removed very many of these, but there are still left not a few to cherish the memory of one who was a skilful practitioner of medicine and a good fellow. Mr. French was buried at Paddington Cemetery, Willesden-lane. He was never married.

THOMAS GOODIER RICHMOND, F.R.C.S.

The subject of the present notice, who died at his residence, Ford House, Prestbury, Macclesfield, on the 17th inst., aged seventy-seven years, was educated at the Manchester Grammar School, and his medical studies were pursued at the Manchester School of Medicine and Surgery, in Pine-street, and subsequently at the principal London hospitals. He became a Member of the Royal College of Surgeons and Licentiate of the Apothecaries' Society in 1833. He commenced practice in his native town in Gartside-street, and subsequently in Coburg-terrace, near Zion Chapel; but it was in the township of Hulme that Mr. Richmond became a popular medical practitioner and a foremost sanitary reformer. He had the entire medical care of the township during the prevalence of cholera in the summer and autumn of 1849, and of the Irish fever in 1851-2. Following the outbreak of cholera in 1849, he issued a report on the deplorable sanitary condition of Hulme. To this report on "Cholera and Choleraic Diarrhœa," no doubt, may be attributed the measures afterwards adopted to improve the water supply, drainage, badly constructed dwellings and lodging houses, &c. When Asiatic cholera reappeared in England, in September, 1853, nearly the whole of the medical men in Manchester, with Dr. Radford at their head, assembled and drew up a code of precautionary and preventive measures. Mr. Richmond co-operated with this movement, and furnished another valuable report to the authorities of his own experiences, and made suggestions which were acted upon. As a thoroughly practical sanitary reformer Manchester is much indebted to him. In 1854 Mr. Richmond was elected a Fellow of the Royal College of Surgeons. About this time he resided in the Chorlton-road, and carried on a large practice on that side of Manchester. He retired some years ago, and lived at Prestbury. In private life Mr. Richmond was a very agreeable, pleasant companion, and he possessed some literary ability.

FREDERICK THOMAS MARRIOTT, L.S.A.

THE above-named practitioner died somewhat suddenly on Nov. 18th, 1887, at 121, Old-street, E.C., aged fifty. Possessed of some private means, he was able to gratify his artistic tastes as a musician and connoisseur of bric-à-brac, and at the same time to avoid the harassing toils and anxieties which, alas, too frequently appertain to the daily round of the general practitioner. Educated at University College, he obtained his L.S.A. diploma in 1877; subsequently he held the posts of assistant house-surgeon to the Western General Dispensary, and assistant medical officer to the Lock Hospital and Salop Infirmary; he was also for some years trumpeter-major and bugler to two corps of Volunteers. A polished man of the world, and an ardent sympathiser with the poor, his memory will remain green in the hearts of many of his brother practitioners and the more indigent of his patients.

Medical News.

UNIVERSITY OF LONDON.—The following candidates have passed the recent M.D. Examination:—

Arkle, Charles Joseph, University College.
Bahadhurji, Kaikhosro Nasarvanji, B.S., University College.
Barnett, Lawrence, University College.
Bright, Eustace Frederick, University College.
Carr, John Walter, B.S., University College.
*Cocking, William Tusting, University College.
Davies, William Thomas Frederick, B.S., Guy's Hospital.
Dingley, Arthur William, University College.
Evans, Willmott Henderson, B.Sc., University College.
*Gow, William John, St. Bartholomew's Hospital.
Green, Charles David, B.S., St. Thomas's Hospital.
Halstead, George Ezra, B.S., B.A., B.Sc., Guy's Hospital.
Harsant, Joseph George, B.S., Guy's Hospital.
Hichens, Frank, B.S., London Hospital.
Hull, Walter, St. Thomas's Hospital.
Jefferson, Arthur John, B.S., St. Thomas's Hospital.
Joule, John Samuel, University Coll. and St. Barth. Hosp.
Lewtas, John, St. Thomas's Hospital.
Marsh, George Ryding, Guy's Hospital.
Paley, Frederick John, St. Bartholomew's Hospital.
Randell, Reginald Maurice Henry, Guy's Hospital.
Rayne, Charles Alfred, B.S., University College.
Robinson, Henry Betham, B.S., St. Thomas's Hospital.
Swain, James, B.S., Westminster Hospital.
Thomas, John Ragian, St. Bartholomew's Hospital.
Trevelyan, Edmond Fauriel, B.Sc., St. Bartholomew's Hospital.
Turner, Philip Dymock (Gold Medal), University College.
Washbourn, John Wychenford, B.S., Guy's Hospital.
*Wild, R. Briggs, Manchester Royal Infirm. and Owens College.
Williamson, Richard Thomas, B.S., Owens College.

Logic and Psychology only.

Thomson, St. Clair, King's College.

* Obtained the number of marks qualifying for the Medal.

The following candidates have passed the recent examination in subjects relating to Public Health:—

Collins, W. Job, M.D., M.S., B.Sc. (Gold Medal)[1] rivate study.
Pearce, W., M.D., B.S., B.Sc., St. Mary's Hospital
Smith, Kenneth Rawlings, M.D., B.S., University College.

UNIVERSITY OF DUBLIN.—The following degrees were conferred last week by the Chancellor of the University:—

BACHELOR IN OBSTETRICS.—William Payne Birmingham, Thomas Willoughby Cole, John Cuffey, Harry Fayle, Ernest Augustus Slaughter, Armstrong Herbert Swifte Todd, William James Weir, Charles William Henry Whitestone.

BACHELOR IN SURGERY.—Henry Kingsmil Abbott, William Payne Birmingham, Thomas Willoughby Cole, John Cuffey, Alfred Russell Darley, Edwin Lindsay Dunn, Charles Grey-Edwards, William Moyle O'Conner, Ernest Augustus Slaughter, Wm. James Weir.

BACHELOR IN MEDICINE.—William Payne Birmingham, Alfred Russell Darley, Frederick William Kidd, Ernest Augustus Slaughter.

MASTER IN OBSTETRICS.—George Chadwick Kingsbury (*stip. con.*).

DOCTOR IN MEDICINE.—Thomas Guy Alexander, Benjamin Morgan Dockerell, Frederick William Kidd, Joseph William Neligan.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At examinations held last week the following was admitted a Fellow of the College:—

Waller, Thomas Bennett.

THE polling for an Assessor for St. Andrews University has resulted in the success of Lord Cross and the defeat of Dr. John Duncan.

THE University of Douai has been removed to Lille, much to the regret of the inhabitants of the former city. The first University at Douai was established in 1560.

A NEW HOSPITAL has been erected at Ruabon by Sir Watkin Williams Wynn, at a cost of £2500. The building was formally opened on the 13th inst.

VACCINATION GRANT.—Mr. P. Butler Stoney, of the Millom district of the Bootle Union, Cumberland, has been awarded the Government grant for efficient vaccination in his district (fifth time).

AT the annual meeting of the supporters of the Royal Albert Hospital, Devonport, on the 13th inst., satisfactory financial and general reports were presented and adopted.

THE GORDON HOME FOR BOYS.—After having been, by permission of the War Office, quartered for nearly two years in one of the forts on Portsdown Hill, the Gordon boys have taken possession of their own home at Chobham.

MEASURES are being taken, we understand, to ascertain the views of the local authorities in Aberdeen and district on the question of erecting for their joint use a hospital for the treatment of persons suffering from infectious diseases.

SOME successful experiments were made at the Brown Institution on the 12th inst., as to the feasibility of saving life at sea by inflation of the skin after a method described in our columns some three years ago by Dr. Silvester.

CENTENARIAN.—Mrs. Mary Hodges of Elton, Hunts, whose death has just been recorded, attained her hundredth birthday on May 9th. She retained her faculties to the last. Her favourite beverage is reported to have been rum, and she was a habitual smoker.

THE New York Academy of Anthropology offers a prize of fifty dollars for an original essay on any subject within the domain of Anthropology. The competition is limited to active, honorary, and corresponding members of the Society at the time the award is made.

PRESENTATION.—On the 12th inst. Mr. Hedley Hill, a student at the Bristol General Hospital, was presented with the silver medal of the Royal Humane Society and an address on vellum, in recognition of the bravery exhibited by him in a successful attempt to rescue, on the 18th of October last, a woman from drowning in the Avon.

FATAL FOOTBALL ACCIDENT.—A young man belonging to Leeds was recently injured while playing in a football match at Roundhay-park, between the Trinity and Roundhay Clubs, and died at the Leeds Infirmary on Thursday last. It appears that he was knocked down and his head forced underneath his chest, so as to dislocate the cervical vertebræ.

MEASLES.—An epidemic of measles has made its appearance in Boston, and several deaths have occurred. The day and Sunday schools have been closed, and the medical officer of health has published a notice warning the parents of infected children not to attend places of worship or public entertainment. The disease is also very prevalent in the Western islands of Scotland and in Canterbury.

THE LADY STRANGFORD HOSPITAL.—It is satisfactory to learn that this institution at Port Said has now been in good working order for some months, and has been of service to many sufferers, who have been landed there from steamers passing through the Suez Canal. Last month 60·8 per cent. of the beds were filled. The committee appeal for £2200, which is still required for the building fund.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—A meeting of the members of this association was held on the 8th inst., Dr. Tatham in the chair, when a paper on "Infant Mortality in Urban Districts" was read by Dr. Welch. The paper, which was illustrated by numerous charts and tabular statements, elicited a discussion, in which Messrs. Niven, Kenyon, Vacher, Rhodes, and others took part.

BEQUESTS.—The following, amongst other legacies, have been given by the will of the late Mr. Thomas Jessop: The Jessop Hospital for Women, £4000; the Sheffield General Infirmary and the Sheffield Public Hospital, £200 each; and the Free Hospital for Children, £100.—The late Thomas Cochrane has bequeathed £200 to the Hospital for Incurables, £200 to the Mater Misericordiæ Hospital, £100 to St. Vincent's Hospital, and £50 to St. Michael's Hospital near Dublin.

THE ULSTER MEDICAL SOCIETY.—The annual dinner of this Society was held at the Royal Avenue Hotel on the 23rd ult. The President, Dr. Esler, occupied the chair, and was supported by a large and influential company. After the usual loyal toasts, the following were given: "The Belfast Medical School," "The North of Ireland Branch of the British Medical Association," "The Ulster Medical Society," and "Our Guests." The evening was enlivened by songs sung by several of the guests, and a very enjoyable *réunion* took place.

VICTORIA UNIVERSITY.—The following appointments to vacant examinerships were made by the Council at a meeting held on Dec. 15th:—Obstetrics: G. Ernest Herman, M.B., F.R.C.P., F.R.C.S., Obstetric Physician and Lecturer on Midwifery in the London Hospital. Pathology: Victor Horsley, M.B., B.S., F.R.C.S., Professor of Pathology in University College, London. Physiology: Augustus D. Waller, Lecturer on Physiology in St. Mary's Hospital Medical School, London. Surgery: A. Pearce Gould, M.B., M.S., F.R.C.S., Assistant Surgeon and Surgical Tutor at Middlesex Hospital, London. Anatomy G. D. Thane, M.D., Professor of Anatomy in University College, London. Forensic Medicine and Hygiene: G. V. Poore, M.D., F.R.C.P., Professor of Medical Jurisprudence in University College, London.

THE Sultan of Turkey has conferred upon Dr. Morris H. Henry of New York the decoration of Commander of the Order of the Medjidieh of Turkey, for "distinguished services in the cause of medical science."

MEDICAL MAGISTRATES.—Upon the recommendation of the Lord-Lieutenant, the Lord Chancellor has inserted the name of Mr. Vincent Jackson in the Commission of the Peace for the county of Staffordshire. Mr. Jackson was Mayor of Wolverhampton last year, and is also a magistrate for the borough.—Mr. David Lloyd, M.R.C.S., L.S.A., has been made a magistrate for the county of Cardiganshire.—The Lord Chancellor, upon the recommendation of the Lord-Lieutenant, the Earl of Dartmouth, has placed William Harry Cooke, M.D., of the Manor House, Aldridge, in the Commission of the Peace for the county of Stafford.

TELEPHONES IN HOSPITALS.—The authorities of the Hospital for Consumptives at Ventnor have decided to adopt telephonic communication between the different wards, the resident doctor, the porter's lodge, &c. The Equitable Telephone Association, Limited, of Queen Victoria-street, London, E.C., who have been entrusted with the order, will employ eleven of their "Swinton" telephones, and the instruments will be connected on the ordinary exchange principle, so that any one of them can be put in communication with any ther. It is anticipated that, when completed, this installation will save the hospital staff much time and trouble.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ADDINSELL, AUGUSTUS W., M.B., C.M., has been appointed Administrator of Anæsthetics to the Grosvenor Hospital for Women and Children.

ALEXANDER, ADOLPHUS B., L.D.S., R.C.S. Eng., has been appointed Dental Surgeon to the Good Templar and Temperance Orphanage.

BARLOW, ARTHUR E., M.B., C.M., M.R.C.S., has been appointed Medical Officer to the Leicester Provident Dispensary, vice Douglas, resigned.

BROOMFIELD, H. J., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Assistant Physician to the City of Dublin Hospital.

CARTER, GRAHAM ATHERLEY, M.D.Mar.Col.Aberd., L.R.C.S.Ed., has been reappointed Medical Officer of Health for the Lichfield Urban Sanitary District.

COWARD, R. COURTENAY, M.R.C.S., L.R.C.P.Lond., has been appointed Honorary Medical Officer to the Kilburn, St. John's-wood, and Maida-vale General Dispensary.

FERNIE, EDWARD, M.D. St. And., M.R.C.S., has been appointed Medical Officer for the Swynnerton District of the Stone Union.

GAMGEE, ARTHUR, M.D., F.R.S., has been elected Assistant Physician to St. George's Hospital, W.

MILNER, JAMES G., L.R.C.P. Ed., M.R.C.S., has been appointed Assistant Physician to the Home and Infirmary for Sick Children and Dispensary for Women, Sydenham.

PATTERSON, GEORGE HENRY, L.R.C.P.Lond., M.R.C.S., L.S.A., has been reappointed Medical Officer of Health for the Dalton-in-Furness Urban Sanitary District.

PLEWS, PAUL R., L.R.C.P.Ed., L.F.P.S.Glas., has been appointed Medical Officer for the Fourth District of the Parish of St. Matthew, Bethnal-green.

SAUNDERS, CHARLES EDWARD, M.D.Aber., M.R.C.P.Lond., San.Sc.Cert. Cantab., has been reappointed Medical Officer of Health for the Watford Rural Sanitary District; for the Hendon Rural Sanitary District; for the Hemel Hempstead Rural Sanitary District; for the Berkhampstead Rural Sanitary District; for the Barnet Rural Sanitary District; for the Tring Urban Sanitary District; for the Welwyn Rural Sanitary District; and for the Barnet Urban Sanitary District.

SNELL, WALTER STANNES, L.R.C.P.Ed., L.R.C.S., has been appointed Medical Officer of Health for the Okehampton Rural Sanitary District, vice Bennett, deceased.

STEELE, HENRY OCTAVIUS, M.R.C.S., L.S.A., has been reappointed Medical Officer of Health for the Gomersall Urban Sanitary District.

THOMSON, JOHN M., F.R.S. Ed., has been appointed Professor of Chemistry at King's College, London, vice Bloxam, deceased.

TURNER, GEORGE R., F.R.C.S., has been elected Assistant Surgeon to St. George's Hospital, W.

WATSON, THOMAS ALFRED, M.B., C.M.Edin., has been appointed House-Surgeon to the Central London Ophthalmic Hospital, vice M. C. Moxham, M.R.C.S., L.R.C.P., resigned.

WEDMORE, ERNEST, M.B. Cantab., M.R.C.S., has been appointed Obstetric Physician to the Bristol Royal Infirmary.

WILDING, JAMES, M.B., L.R.C.P., M.R.C.S., C.San.Sc., has been appointed Medical Officer to the Bristol Foresters' Institute.

WYNNE, J. DARLEY, B.A., M.B., B.Ch.Trin.Col.Dub., has been appointed Junior Assistant House-Surgeon to the Public Hospital and Dispensary, Sheffield.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

ADDENBROOKE'S HOSPITAL, Cambridge. — Resident House-Physician. Salary £65 per annum, with board, lodging, and washing in the hospital.

BOOTLE CORPORATION HOSPITAL FOR INFECTIOUS DISEASES.—Resident Medical Officer. Salary £100 per annum, with board, washing, and apartments at the hospital.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Resident Medical Officer. Salary £100 per annum, with board, &c.—Resident Clinical Assistant.

ESSEX AND COLCHESTER HOSPITAL. — Physician. Salary £200 per annum.

FARINGDON UNION.—Medical Officer, Public Vaccinator, and Medical Officer of Health. Salary £70 per annum, with extra fees for operations and services allowed under the orders of the Local Government Board, together with the statutable vaccination fees.

GLAMORGANSHIRE AND CARNARVONSHIRE INFIRMARY AND DISPENSARY, Cardiff.—House-Surgeon. Salary £100 a year, with board, washing, and furnished apartments.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Junior Resident Medical Officer as House-Surgeon. Salary £50 per annum, with board and residence in the hospital.

HULL ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary £50, with board and lodging.

MONSALL FEVER HOSPITAL, Manchester.—Assistant Medical Officer. Salary £100 per annum, with board and residence.

NATIONAL DENTAL HOSPITAL, Great Portland-street, W.—Lecturer on Histology.

POPLAR HOSPITAL FOR ACCIDENTS, East India-road, Poplar, E.—Two Honorary Surgeons.

ROYAL FREE HOSPITAL, Gray's-inn-road, W.C. — Junior Resident Medical Officer. Board and residence in the hospital.

ST. GEORGE'S HOSPITAL, Hyde-park-corner, W.—Curator of the Pathological Museum.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN. — Two Assistant Physicians.

WIGAN UNION.—Medical Officer, Public Vaccinator, and Dispenser. Salary £170 per annum, unfurnished residence and surgery, free of all rates and taxes, and coals, together with the usual allowance for each case of successful vaccination, and such extra fees for the treatment of surgical and midwifery cases as are authorised by the orders of the Poor Law Board.

WORCESTER AMALGAMATED FRIENDLY SOCIETY. — Assistant Medical Officer. Salary £140 per annum (without residence), with a portion of midwifery fees; also £20 per annum for cab hire.

Births, Marriages, and Deaths.

BIRTHS.

CROOKSHANK.—On the 15th inst., at The Yews, Eastbourne, the wife of Edgar Crookshank, M.B., of a daughter.

CROOM.—On the 16th inst., at 25, Charlotte-square, Edinburgh, the wife of J. Halliday Croom, M.D., F.R.C.P.E., of a daughter.

DOWNES.—On the 19th inst., at Mellerstein, Eastbourne, the wife of Dr. E. Downes, of a son.

GLENDINNING.—On the 15th inst., at Larchfield, Abergavenny, Monmouthshire, the wife of James Glendinning, M.D., Medical Superintendent, Joint Counties Asylum, Abergavenny, of a daughter.

MCGEAGH.—On the 12th inst., at Oakford, Polsloe-road, Exeter, the wife of Surgeon R. T. McGeagh, Army Medical Staff, of a son.

SAWTELL.—On the 8th inst., at Stapleton-hall-road, Stroud-green, N., the wife of T. H. Sawtell, M.D.Lond., M.R.C.S., L.R.C.P., of a son.

THOMSON.—On the 18th inst., at Coates-crescent, Edinburgh, the wife of John Thomson, M.B., C.M.Edin., of a son.

TIBERGHIEN.—On the 20th inst., at 52, Rue du Nord, Brussels, the wife of Lucien Tiberghien, M.D., of a son.

UPPLEBY.—On the 16th ult., at Port Elizabeth, South Africa, the wife of Dr. J. G. Uppleby, of a daughter.

WARNER.—On the 16th inst., at Rydal, Woodford-green, Essex, the wife of Percy Warner, M.R.C.S., L.R.C.P.Lond., of a son.

MARRIAGE.

CRIPPS—BRADLEY.—On the 15th inst., at St. Matthew's Church, by the Rev. A. H. Baynes, assisted by the Rev. T. B. B. Ferris, Vicar, Charles Couper Cripps, M.D., of Denmark-hill, London, son of Richard Cripps, of The Grove, Brislington, Somerset, to Edith Ellen, only daughter of John Bradley, of The Park, Nottingham.

DEATHS.

GARDEN.—On the 17th inst., at The Cedars, Merrow, near Guildford, Archibald MacDonald Garden, Deputy Surgeon-General, Bengal Medical Service, retired, and late Superintendent-General Vaccination, Punjab, in his 56th year.

TOLEKEN.—On the 13th inst., at Longford-terrace, Monkstown, co. Dublin, John Toleken, M.D., Ex-Senior Fellow of Trinity College, Dublin, in his 85th year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, December 22nd, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Dec. 16	29·46	S.W.	52	51	61	53	42	·05	Raining
,, 17	29·80	S.W.	42	40	65	42	40	·06	Fine
,, 18	29·81	S.W.	39	38	60	45	32	...	Cloudy
,, 19	29·52	W.	34	33	...	44	31	·11	Cloudy
,, 20	29·54	W.	35	34	...	39	31	·02	Overcast
,, 21	29·65	N.E.	35	34	...	39	33	·02	Cloudy
,, 22	29·96	N.E.	35	34	...	39	33	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE CLIMATE OF EGYPT.

DR. SCHLIEMANN, the celebrated archæologist, having gone outside his *métier* to disparage the climate of Egypt in relation to phthisis, has evoked from Dr. Heymann (for many years the leading German physician in Cairo) a highly effective rejoinder. Egypt, according to this eminent authority, remains what she always was—a supremely favourable winter resort for the consumptive patient in every stage of his malady. Dr. Heymann furnishes evidence that in the two requisites of a winter station for the phthisical the advantages of the Egyptian climate are pre-eminent, the first requisite being the obviating of the disposition to tuberculosis of the lung, or the correcting of this at its early stage; the second, mitigation of the distressing and wasting symptoms of the disease when advanced.

Private Practitioner.—There is no written law on the subject, and the medical officer of health cannot therefore be said to be acting illegally; but it is customary for him to obtain his information through the medical attendant, whose certificate on this subject should guide him.

F. C.—1. Fee quite reasonable.—2. Not too much, if the patient can pay. Rental small for that.—3. A guinea.—4. A guinea. The patient is liable, not the medical man.

Dr. A. G. Macdonald.—We cannot advise in the matter.

WORD-DEAFNESS AND WORD-BLINDNESS.

To the Editors of THE LANCET.

SIRS,—In the various works which treat of word-deafness and word-blindness the description of these defects is so confused as to be scarcely intelligible. They are, I believe, supposed to be due respectively to lesion of the first and second temporo-sphenoidal convolutions, and of the angular gyrus and adjoining part of the inferior parietal lobule; but I am not clear whether these defects are due solely to lesions in the left hemisphere, as in motor aphasia. Is this so? Information on this point will be much appreciated by,

Yours faithfully,

Dec. 19th, 1887. A MEMBER OF TWENTY YEARS' STANDING.

P.S.—Is hemianopsia due to lesion of the same centre as word-blindness?

*** The part of the brain concerned in the auditory perception of words is the posterior half of the first temporal convolution on the *left* side in right-handed individuals; so is the centre for word-blindness. Hemianopsia may be due to a cortical lesion.—ED. L.

VIVISECTION.

THE *Globe* of Dec. 19th publishes the following letter:—

"*A Correction.*—Sir,—In your issue of Nov. 30th there was a short report of a speech of mine at the Anti-Vivisection Conference held the day before, in which I related an incident that had been told me by a doctor, which implied a breach of the Vivisection Act by the University College, Liverpool. At the request of the College authorities, I have still further investigated the evidence on which I made my statement, and which I believed to be perfectly accurate at the time. I now find that my recollection of what I was told was not correct in certain respects, and that therefore the impression I conveyed to my audience was wrong. Consequently, I desire to withdraw the statement; and as your paper was the only one in which I saw it published, I shall be obliged if you will insert this note.—I am, &c.,

"WALTER S. B. M'LAREN.

"St. James's Lodge, Delahay-street, Westminster,
December 17th."

Mr. Hubert Henry, and *C. C.* (Chichester).—We must refer our correspondents to a paragraph on the subject published in THE LANCET of Oct. 15th, p. 794.

Fairplay.—It would, we think, be far better to endeavour to arrange a meeting with the view of settling the matter amicably.

J. S. S.—The course suggested is certainly open to objection.

V. V.—Our correspondent is thanked.

VOLUNTARY BOARDERS IN ENGLISH LUNATIC ASYLUMS.

To the Editors of THE LANCET.

SIRS,—I observe in your issue of the 17th inst. the reply of Dr. Savage to the question which you were good enough to allow me to put to your readers in THE LANCET of Dec. 10th. Having since I wrote taken the opportunity of consulting the Lunacy Acts upon the matter in question, I find the first part of that reply perfectly satisfactory, being, as I believe, in accordance with the provisions of 25 and 26 Victoria, cap. iii., sec. 18. But with regard to the second part of the reply—viz., "that registered hospitals, such as Bethlem, can receive as voluntary boarders any patients [i.e., those who may not have been within five years immediately preceding certificated patients in any asylum, hospital, or licensed house, or under care as certificated single patients] who voluntarily place themselves under care, provided," &c., I have failed to find any clause in any of the existing Lunacy Acts at my disposal bearing upon it. I should feel greatly obliged if Dr. Savage or some other of your readers would kindly point out this clause, if it should happen to exist in some other Act which I have not seen, and at the same time state whether such provision extends to English licensed houses, and also whether, both in the case of hospitals and licensed houses, the previous assent in writing of two or more of the Commissioners in Lunacy is necessary before admission as a voluntary boarder under it.

I am, Sirs, your obedient servant,

Dec. 19th, 1887. QUÆRENS.

ROUGH-AND-READY SURGERY IN THE BUSH.

To the Editors of THE LANCET.

SIRS,—A friend in New South Wales, writing in July last, mentioned that on returning from an excursion he had made on Jubilee day to the Sugar Loaf mountain he passed an old man sitting at the door of his hut sewing up with a needle and thread a rather severe cut he had inflicted on the thick part of his hand with a hatchet. In a letter written in October he gives an amusing sketch of an attempted cure for snake-bite:—"The other day a man came to me to be treated for snake-bite. A snake had bitten him on the point of the thumb, and he, wishing to cut a slice off, got an old razor, which he held against the place, his wife trying to hit it with the back of a knife, in which attempt she succeeded after striking his fingers several times. An incision being made, he at last got a piece off, partly tearing and cutting, and then came to me, a distance of ten miles. I kept him here under treatment for four hours, and then, finding there was no further danger, sent him home. I expect he will lose a piece of his thumb, but think the joint will be saved. It will not, however, prevent his working. People often maim themselves unnecessarily. I knew a girl who some time ago chopped her finger off with a tomahawk after snake-bite. As long as the teeth-marks are taken out about the size of a threepenny or sixpenny piece, that is quite enough."—I am, Sirs, yours truly.

New Cross, S.E., Dec. 7th, 1887. H. CARLILE.

EPSOM COLLEGE.

To the Editors of THE LANCET.

SIRS,—I have read with much concern the letter of "A Medical Practitioner" in your last issue relative to Epsom College. Having meditated sending two of my sons to the College, with the hope of securing a good education at a moderate outlay preparatory to entering upon the medical curriculum, I am staggered at the prospect of £130 a year for tuition fees. My income is insufficient for such an outlay, and I must therefore abandon the idea of this school, much to my regret. It becomes an impossibility for the average medical man to avail himself of the benefits of Epsom College for his boys at such an expense.

Believe me, Sirs, faithfully yours,

Dec. 19th, 1887. A GENERAL MEDICAL PRACTITIONER.

THE HISTORY OF BLIND ASYLUMS.

A. J. B. (Hamburg).—The best authority on this subject is M. Léon Legrand, from whose "Recherches sur la Condition des Aveugles du Moyen Age" we gather that in the first centuries of our era the blind were treated like the poor and infirm, St. Laurence, for example, having, according to the Church legend, tended a blind man in the house of Narcissus. St. Jerome, writing to St. Pammachius, enjoins him to seek equality with the poor, to be an arm to the weak and an eye to the blind. St. Basil founded at Cæsarea, about the middle of the fourth century, a hospital in whose *personnel* there were "leaders of the blind," which shows that the institution harboured those deprived of sight. In the fifth century St. Linnæus retired to a mountain, where the blind were brought to him for cure, and inhabited dwellings constructed around his hermitage. A century later Jerusalem could boast of a "typhocomium," and in the ninth century the Mahometans made tendance of the blind a State duty. In 1260 St. Louis instituted the hospital of the Quinze-Vingts, not, as is believed, to accommodate 300 knights who had been made sightless by the Saracens during the sixth crusade, but, according to Joinville, to give relief to the blind of Paris. This establishment harboured 300 blind of both sexes, who shared their means in common and lived together under the style of brothers and sisters, its director being nominated by the King, whose high almoner safeguarded its interests. Thanks to donations and contributions from all France, it acquired important possessions; and in 1292 Renauld Barboult, a burgess of Chartres, founded in imitation of it, at the gates of that town, another asylum called the Six-Vingts. Caen, Meaux, Châlons, Orléans, Tournay, and probably Angers, had each their "maison des aveugles," similar to which were the blind asylums of neighbouring countries. Vienna had one in 1923, Padua another in 1377, Frankfort another in 1480. In England the Guild of the Virgin was a mutual assistance society against maladies, particularly that of blindness.

Mr. W. H. Pepler.—1. We believe the report of the German Vaccination Commission was signed by the whole Commission. They were not unanimous on all points.—2. In 1883 vaccination was not obligatory in Austria, but was "carried out as far as practicable." In the same year in France vaccination was not compulsory on the general population, but short regulations existed requiring its performance on members of the army and navy. We believe no changes have been made in the laws of these countries since that date.—3. The extract is a fair *résumé* of Dr. Creighton's observations; but he states that he does not mean a venereal chancre.

Boxer.—We do not notice communications unauthenticated with the name of the writer.

X. Y. Z.—We do not give medical advice. The ordinary medical attendant should be consulted.

M.B.—Thanks. The reply appeared in our last impression.

THE MEETING OF CONSTITUENTS OF THE HOSPITAL SUNDAY FUND.

To the Editors of THE LANCET.

SIRS,—I fear that I must have expressed myself ambiguously at the meeting of the Hospital Sunday Fund at the Mansion House, as there is an error in your report. I did not say that if "twenty years ago the accounts of Guy's Hospital had been overhauled by the critical eyes of the Council the hospital would not be in its present plight," but I pointed out that if the accounts had been published for the last twenty years the liberality of the public would probably have prevented the hospital from being in its present plight. The accounts have been drawn up accurately, not merely for twenty years, but for a very much longer period. They have been regularly submitted to the Charity Commissioners, and now that the governors have appealed for public money they will be published. It is not bad bookkeeping, but agricultural depression, that has caused the vacant beds. The whole body of chartered accountants cannot raise the value of agricultural land. I trust that you will find room for this correction, and that Guy's Hospital may meet with that support from the Hospital Sunday Fund and from the public which its great necessities require and its careful administration unquestionably deserves.

I am, Sirs, yours faithfully,

Westbourne-terrace, W., Dec. 20th, 1887. ALFRED L. COHEN.

"A WARNING."

To the Editors of THE LANCET.

SIRS,—In your issue of to-day Sir Dyce Duckworth is good enough to warn members of the profession against a man who is using his name and recommendation to sell "various kinds of cloth." I expect this is the same person who called on a distinguished London surgeon a few days ago, and sent in my card as an introduction to business. He succeeded in selling a piece of cloth, and my friend will not grieve over the purchase if he can find a tailor to "make it up." I know nothing of this man, or how he got possession of my card.

I am, Sirs, very faithfully yours,

Manchester-square, W., Dec. 17th, 1887. WILLIAM H. DAY.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Haslam, Birmingham; Dr. O. Sturges; Dr. Malcolm, London; Mr. Bernard Pitts, London; Dr. Thomas Oliver, Newcastle-on-Tyne; Sir Dyce Duckworth, London; Hon. Mary F. Howard, London; Mr. A. L. Cohen, London; Dr. J. More, Rothwell; M. Lowenthal, Vienna; Mr. H. B. Adams, London; Dr. Maccall, Morecambe; Messrs. Condy and Co.; Dr. W. H. Day, London; Dr. Groom, Wisbech; Mr. Garrett Horder, Cardiff; Mr. W. Whitehead, Manchester; Messrs. Midgeley and Sons, Manchester; Dr. Paramore, London; Messrs. Wood and Co., New York; Dr. G. Thompson, Stapleton; Mr. Forest; Dr. De Witte, Cairo; Surgeon-Major T. Robinson; Dr. Jas. Wilson, Haverfordwest; Mr. S. C. Griffith, London; Mr. A. C. C. Swinton, London; Mr. M. C. Corner, London; Mr. W. Anderson, London; Mr. Savill, Paris; Mr. Fuge, Taunton; Miss Adams, St. Leonards; Dr. McCall, Pietermaritzburg; Mr. Purves; Mrs. Howard; Mr. Barrier, Sheffield; Dr. Wood; Mr. Griffiths, Bristol; Dr. Popham; Mr. Keith, Edinburgh; Dr. Jeaffreson, Newcastle; Mr. Palmer, Hanley; Mr. G. Steinkopf, Berlin; Mr. W. Johnston, Aberdeen; Mr. R. H. James, Malmo; Mr. Coleman, Cardiff; Dr. Dumay, Spezzia; Mr. Saunders, Manchester; Mrs. Mahony, Preston; Messrs. Mason; Dr. Barrabim, Trapani; Dr. Morini, Penique; Mr. Beckett, Eastbourne; Mr. J. R. Rogers, Damietta; Mr. Robinson, Harrogate; Messrs. Valeriani, Turin; Mr. Palmer, Oakham; Mr. R. Mountain; Messrs. Liberty and Co., London; Mr. O. Pemberton, Birmingham; Mr. Mark Hovell, San Remo; Surgeon-Major Boileau, Ferozepore; Dr. Steven, Glasgow; Mr. Whitehead, Newcastle-on-Tyne; Dr. Stirling, Grays; Dr. Martin, London; Mr. Khambati, London; Mr. Greenwood, London; Mr. G. Fleming, London; Mr. Bampton, Plymouth; Mr. R. Smith; Mr. N. Nicholl, London; Dr. Nicholl, Buckie; Mr. Rimbieri, Paris; Mr. R. Billson, Pekin; M. Marochetti, Venice; Mr. Willett, London; V. V.; F. C.; Querens; H. A. L.; J. G.; W. H.; S. T.; A General Medical Practitioner.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Bond, Leicester; Mr. Clarkson, Leeds; Dr. Pearson, Seamoor, Cape of Good Hope; Dr. Crookshank, Eastbourne; Mr. Brocklehurst; Dr. Evan de Merwe, Devildrop, Cape; Mr. Pikay, Kullakurchi; Dr. Darosha Horninsji, Drangadon; Mr. Branthwaite, Watford; Messrs. Battle and Co., St. Louis; Dr. Mackenzie, Bdinburgh; Messrs. Porteous and Co., Glasgow; Dr. Lytle, Maghera; Mr. Sergeant, London; Mr. Poole, Maldon; Mr. Bschwege, London; Dr. Thyning, Sydney; Mr. Hitch, Hollington; Dr. Glendenning, Abergavenny; Dr. Kane; Mr. Tully; Mr. Gastang; Mr. Mann; Mr. Charlesworth, Hanley; Mr. Wormald, Manchester; Dr. Garrett; Mr. Urwin; Dr. Armstrong; Dr. Taylor, Mattishall; Mr. Allwright, Maidenhead; Mr. Butcher; Mr. Dwelly, Stone; Mrs. Sharman; Mr. Palmer; Dr. H. Cask; Dr. Adams, West Malling; Mr. Jay; Mr. Heywood, Manchester; Mr. Holt; Mr. Hope; Mr. Griffith, Clifton; Mr. Brown; Mr. Monckmon; Mr. Oswald, London; Mr. Davenport, London; X. Y., Stamford-hill; H. H. H.; Practitioner; W. K., Brighton; T. B. W., Pontefract; W. P.; Las Palmas; General Hospital, Notts; V. N. X.; Matron, Weston-super-Mare; Medicus, Birmingham; Assistant, Dumfries; Medicus, Bradford; Medicus, Manchester; M.A., Cambridge; F.R.C.S.; Alpha, Yarmouth; L. W., Herts; B. G. S. L.; M. C. L.; Medicus; Fides.

Cork Constitution, Florida Times Union, Leicester Daily Mercury, Charity Record, Manchester Evening News, Cape Times, The Topaz (Christmas No. of *Church of England Temperance Chronicle*), *Church Monthly, South Wales Daily News, Night and Day, &c.*, have been received.

Medical Diary for the ensuing Week.

Monday, December 26.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, December 27.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
ROYAL INSTITUTION.—3 P.M. Sir Robert Stawell Ball: The Sun. (Lecture adapted to a juvenile auditory.)

Wednesday, December 28.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-ST.—Operations, 9 A.M.; Saturday, same hour.

Thursday, December 29.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Sir Robert Stawell Ball: The Moon. (Lecture adapted to a juvenile auditory.)

Friday, December 30.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, December 31.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Sir Robert Stawell Ball: The Small Planets. (Lecture adapted to a juvenile auditory.)

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